

New Hampshire Rivers Management and Protection Program

River Nomination Form

7/15/91

Instructions: Before beginning any work on a river nomination, sponsors should contact the State Rivers Coordinator in the NH Department of Environmental Services (DES). The Coordinator can provide initial guidance by identifying local and regional contacts and other sources of information and can give advice throughout the preparation of a river nomination. A publication, "A Guide to River Nominations," is also available from the Rivers Coordinator. This Guide includes a step-by-step explanation of the nomination process and a directory of federal, state, regional, and private sources of information and technical assistance. The River Coordinator's address and telephone number are: DES Rivers Coordinator, P.O. Box 95, 6 Hazen Drive, Concord, NH 03301, (603) 271-3503.

I. NOMINATION INFORMATION

1. Name of River: Connecticut River
2. River/River Segment Location and Length (miles): 255 miles
3. (a) Sponsoring Organization or Individual:  
Connecticut River Valley Resource Commission, New Hampshire
- (b) Contact Person: George Moulton, Chair CRVRC or Sharon Francis, Executive Director CRVRC

Address: P.O. Box 1182, Charlestown, NH 03603

Phone Number (daytime): 826-4800

Additional contact: Burnham Martin, Nomination form editor  
National Park Service River and Trail Conservation  
Assistance Program, P.O. Box 1277, Charlestown, NH 03603,  
826-5152.

## II. SUMMARY: RESOURCES OF STATEWIDE OR LOCAL SIGNIFICANCE

Explanation: In order to be eligible for designation to the NH Rivers Management and Protection Program, a river must contain or represent either a significant statewide or local example of a natural, managed, cultural, or recreational resource.

### Instructions:

1. By checking the appropriate boxes below, indicate the resource values that you believe are present in the nominated river and whether you believe these values are present at a level of significance that is statewide or local. If the value is not present, leave the box blank.

	Value Present/ Statewide Significance	Value Present/ Local Significance
<b>Natural Resource</b>		
Geologic Resources	[ X ]	
Wildlife Resources	[ X ]	
Vegetation/Natural Communities	[ X ]	
Fish Resources	[ X ]	[ ]
Water Quality	[ ]	X
Open Space	[ X ]	[ ]
Natural Flow Characteristics	[ ]	[ ]
Scenic Resources	X	[ ]
<b>Managed Resources</b>		
Impoundments	X	[ ]
Water Withdrawals/ Discharges	X ]	[ ]
Hydroelectric Resources	X ]	[ ]
<b>Cultural Resources</b>		
Historical/ Archaeologica Resources	[ X ]	[ ]
Community River Resources	[ X ]	[ ]
<b>Recreational Resources</b>		
Fishery Resources	[ X ]	[ ]
Boating Resources	[ X ]	[ ]
Other Recreational Resources	X ]	[ ]
Public Access	X ]	[ ]

2. Briefly describe the most important resource values which are present in the nominated river and why you believe these values are significant from either a statewide or local perspective. For example, if the river contains a segment of whitewater that attracts kayakers from throughout the state and is identified in regional boater's guide as a premier whitewater boating segment, you should identify recreational boating as a significant statewide resource and include one or two sentences in support of this statement. In addition, if you feel that a resource value is threatened, explain why.

\*\*\*\*\*  
Overall, any view one might have from or to the River is scenic in its own special way. From the undeveloped forests and fields, to the open farmlands, to the mountains and hills, to village views, the Connecticut River presents a sublime prospect. Peaceful scenes of islands and meadows with wildlife add to the river's beauty. Rock outcroppings, as well as access points and scenic drives, provide opportunities to view the River. The scenery, and the variety of ways and places to enjoy it contribute to the quality of life for River Valley residents. These resources also contribute to the attractiveness of the area for tourists.

The Interstate corridors leading to and through the River Valley are the arteries that allow the easy access and economic benefit brought by the tourists, relocating businesses and diversity of development. The River has historically created this atmosphere and is a vital part of the state's economy because of its unique tranquility and beauty.

Boating is an important and popular use of the River. The varying nature of the River means that a number of different types of experiences are possible. Some folks use a boat for access to fishing sites that would otherwise be inaccessible. Anglers use all types of boats, from high speed bass boats, to outboard skiffs, to rowboats and canoes. People out for a day of picnicking and sunning on the River similarly use a variety of motorized and nonmotorized craft. Special uses of the River include waterskiing on some of the wider, impounded sections, and whitewater paddling on some of the free flowing sections. The entire River is navigable by canoe and is used by canoeists for its full length. Many sections are quite popular. Day touring is the most frequent activity as the River offers a variety of experiences and, at least in its southern reaches, enough access to allow convenient trip lengths. Every year intrepid explorers paddle long stretches of the River, although formal camping places are few. Some take a slightly easier approach to their long tours and stay overnight at inns.

Since the days when Indians first settled on the banks of the River to begin agricultural endeavors, the Connecticut Valley has been known for its fine farmland. Low-terraces in the Valley were submerged under glacial lakes in prehistoric times and rich sediments were deposited in flat layers. The River later cut through these sediments to form its current channel which is periodically overflowed to provide rich new sediments to the soil. The Connecticut River Valley still supports a number of farms and is known for some of the finest agricultural land in New England. In addition to providing a living for farmers, and milk and specialty products for consumers, the farms

are critical to maintaining the character of the Valley

The Connecticut River was a significant early producer of hydroelectric power (beginning in 1908) and it continues to provide power for the regional grid today. The Connecticut is managed for most of its length in NH for and by 9 dams that provide water storage for hydroelectric power. The Moore Dam is the largest dam in New England. The Connecticut River also provides industrial process water to a number of plants, mills, and factories along its shore.

From earliest times, the River Valley has been a significant travel corridor. Indians and early settlers depended on the River for transportation of people belongings, and trade goods. The age of steam brought riverboats and canals around rapids low on the River and later railroads which made use of the steady gradient of the River Valley. Today, the Valley includes an active rail line in its southern reaches. Interstate 91 follows the River Valley as well.

The Connecticut River Corridor is home to a number of rare species of plants and animals. River environments are always dynamic and are likely to be home to rare species, and the Connecticut is no exception. Added to this fundamental characteristic, are the facts that the Connecticut passes through a variety of climate types and forest types as it loses elevation and makes its long trip southward, and that the River crosses a variety of types of bedrock which contribute to different local environments. In addition, the Connecticut is an important travel corridor for animals which means that rare species pass through during migration. Four federally listed endangered species live in or near the River and Corridor. Numerous plants and animals are listed as state endangered or threatened. Five categories of exemplary natural communities are found in the Corridor.

The River Valley is an important corridor for migrating birds thanks to its length and orientation. Patterns of development leave sufficient open space for songbirds to find habitat for food and shelter. Likewise, the River offers good habitat for waterfowl which find ample opportunities for stopping points during their travels.

The Connecticut River is also an important habitat for a diversity of fish, both cold and warm water species. Fishermen come from afar to the Connecticut River for its trout. Local fishermen also enjoy catching bass, walleye, pickerel, perch, and shad. Since 1968, an extensive effort has been underway on the part of four states, the US Fish and Wildlife Service and New England Power Company to restore the Atlantic Salmon to its ancestral habitat in the waters of the Connecticut River. Tributaries and the main stem will all provide spawning habitat when these magnificent fish return to the upper River again.

Both historically and at present, the Connecticut River and its Valley have united communities. Early in our nation's history, some New Hampshire towns along the River were claimed by Vermont, and on one occasion, the Vermont legislature met in Charlestown. In the early part of this century, New Hampshire taxed land that was covered by the spring floods on the Vermont side. Today, the boundaries are settled, but the Connecticut Valley is still



very much a community and a united region where people feel they are distant from their state capitals and have a character that distinguishes them from the rest of the states.

The settlement patterns of Europeans in the Connecticut Valley developed a mosaic of villages and small cities surrounded by rural areas. This pattern persists in many areas today. This pattern of development is characteristic of the Valley and lends to its appeal for both visitors and residents. Town squares with white houses and churches, stately brick homes, and rows of brick mill buildings, provide an historic architectural heritage of outstanding quality. Visitors are drawn to enjoy the Valley and contribute to its economy thanks to its visual quality. The same high quality landscape makes the Valley a good place to live and work and contributes to happy, productive employees as many businesses recognize.

Issues that were identified by the working groups who developed the nomination include the following:

**Boat speeds:** Riverfront landowners and working groups members identified excessive motorboat speeds as a problem. Many motorboat operators are ignorant of or disregard NH laws concerning headway speed within 150 feet of shore or another boat. It was felt that excess speeds contribute to an unsafe experience for boats that are stopped or moving slowly or for smaller less stable boats. Others felt that boat wakes contribute to bank erosion and increasing sediment in the water.

**Bank erosion:** Working group members expressed concern about bank erosion and that problem was the one most frequently mentioned by respondents to the riverfront landowner survey sent out by the Commissions and working groups. A number of different possible causes were noted for this erosion including storm waters, ice scouring, wave action in impoundments, fluctuating water levels due to the operation of hydroelectric dams, and boat wakes.

**Water use:** Working groups in the southern portions of the River Valley were concerned about withdrawals for future water uses in New Hampshire and Vermont as well as south of the Massachusetts border. The feeling was that we need to keep water flow in the River for all the uses that we recognize for communities in New Hampshire and Vermont.

**Future hydropower sites:** Four sites with potential for hydropower development have been identified in the River: the breached dam at Lyman Falls, the breached dam in Northumberland, the Hart Island site between Plainfield and Hartland and the Chase Island site between Cornish and Windsor. Working group input to the Commissions was that reconstruction of the Northumberland site would be appropriate and that reconstruction or construction of the other sites would be inappropriate. Concern was expressed over the possible negative effects of a rebuilt dam on water quality and salmon spawning habitat. Local representatives in the Lyman Falls section noted its spectacular fishing as well as its value for canoeing and scenery, all of which are vital for the health of local tourist businesses. Local representatives of the section between Wilder Dam and the impoundment above the Bellows Falls dam recognized its value as a free flowing section and

classified it to indicate that its scenic, canoeing, fishing, agricultural and natural characteristics and value as endangered species habitat should take precedence over hydro development.

Interstate coordination: Working group members noted that there are many differences between NH and VT policies affecting the Connecticut River. Groups noted a need for increasing coordination for what is a single resource system.

Access and camping: Particularly in the northern part of the River, access to the River is a problem. Access points are in too short supply to meet the demand. Farther south, access points are more numerous. There are very few official camping points along the river for people travelling by canoe. Frequent, legal campsites would facilitate such travel.

\*\*\*\*\*

### III. COMMUNITY AND PUBLIC SUPPORT

Explanation: The level of community and other public support which is demonstrated for a river nomination will be an important factor in determining whether that river will be recommended for legislative designation. Such support may be shown by the adoption of a town resolution, a letter from selectmen, master plan excerpts, or documented support from other groups, either public or private (if private, explain the group's purpose and who is represented).

Instructions: Describe the type of community and other public support which exists for the river nomination and attach appropriate documentation.

\*\*\*\*\*  
 The Connecticut River Valley Resource Commission in cooperation with its sister Vermont organization, the Connecticut River Watershed Advisory Commission, have worked to develop public awareness of and support for nomination of the Connecticut in a number of ways. Outreach efforts include the following:

After making a decision to pursue nomination, the joint Commissions held three public meetings to introduce the Rivers Management and Protection Program and identify people who were interested in participating in the nomination process. Meetings were held in Lancaster on October 24, 1990, in Norwich, VT on November 1, 1990, and in Putney, VT on November 8, 1990. Meetings were well attended and people interested in working on the nomination were identified.

The River was divided into five sections (to insure reasonable travel distances for volunteer participants) and working groups corresponding to the sections were established to gather data, review existing inventories, prepare maps, and make recommendations for nominating segments of the River. The Commissions sent letters to every town board on both sides of the River asking them to appoint a member to the appropriate working group. (1800 letters were sent in all.) If a town was not represented at a working group meeting, an effort was made by working group coordinators to contact and invite a town representative. The first working group meeting was held in late December 1990 and the groups worked through the winter and spring. In total, 282 River Valley residents participated in the working group process. Of the 53 towns in River Corridor, all had representation except one in New Hampshire, Columbia, and five in Vermont: Maidstone, Barnet, Ryegate, Westminster, and Dummerston.

The next public meetings were held in the end of June to present draft river classifications to the public. Meetings were held between June 17 and 27 in Colebrook, Littleton, Hanover, and Charlestown, NH, and Brattleboro, VT. Letters of invitation were mailed to every town board inviting them to participate, and press releases were sent to Valley newspapers and TV and radio stations inviting public participation.

Attendance ranged from about 15 at the Hanover meeting to about 60 at the Colebrook meeting. At each meeting, presentations about the New Hampshire

Rivers Program and the Connecticut nomination were followed by a long period for questions. Questions generally focused on the purpose of the program, protection measures for each classification, questions about specific segments and their classifications, and questions about effects on land use. At the end of each meeting, attendees were asked what their opinions were about the nomination. At the southern three meetings, landowners and town officials expressed support for the nomination. At the Littleton and Colebrook meetings, the majority of participants were supportive of the nomination, however, there were strong voices of dissent expressing concerns that the nomination would affect land use and preclude hydropower development. At the end of each meeting, town officials were asked to write letters of endorsement, and other participants were asked to contact officials in their towns to ask for endorsement letters.

Questionnaires based on the model questionnaire in the River Nomination Guidebook and a letter of explanation were prepared for mailing to every riverfront landowner on the River. The working group members gathered the names of every riverfront landowner in their towns and assisted in sending them out. In all, over 1300 questionnaires were mailed, although this number overestimates the number of landowners on the River as some landowners hold land in more than one town and were thus mailed more than one questionnaire. About 400 questionnaires were returned to the Commissions and results were tabulated by the US Forest Service Northeastern Forest Experiment Station in Burlington, VT. A partial summary of results is tabulated below (figures rounded):

- |   |         |
|---|---------|
| 1. Average acreage owned                                      | 78      |
| 2. Average frontage on river owned                            | 3240 Ft |
| 3. Average years owned  | 19      |
| 4. 67% said river played role in purchase of property         |         |
| 5. 45% said property is for full time residence               |         |
| 6. 14% " " " " second home                                    |         |
| 7. 37% " " " " farming  |         |
| 8. 34% " " " " recreation                                     |         |
| 9. 88% will continue to use property as now                   |         |
| 10. 43% allow public to use their property                    |         |
| 11. Of the problems owners have, 37% made littering the worst |         |
| 12. 25% had taken action to correct problems                  |         |

#### THE RIVER AND THE COMMUNITY

13. 96% said river contributed to quality of life in community
14. 65% said open space was important
15. 50% said agriculture
16. 34% said water supply
17. 84% said wildlife and waterfowl
18. 55% said wetlands
20. 44% said swimming
21. 81% said boating
22. 85% said fishing
23. 84% said scenic values
24. 50% said free flowing water
25. 8% said shoreline development

26. 25% said historic/cultural sites

27. 9% said hydroelectric

Of those responding to an evaluation of characteristics associated with the Connecticut River, the answers ranged as follows between:

	<u>Very important</u>	<u>and</u>	<u>Very Unimportant</u>
Open Space	67%		12%
Industrial development	15%		63%
Commercial development	13%		60%
Residential development	11%		30%
Fishing access	51%		5%
Boating access	49%		8%
Swimming access	38%		9%
Scenic quality	82%		2%
Water quality	81%		2%
Free flowing water	67%		9%
Wildlife/waterfowl habitat	81%		2%
Fisheries habitat	63%		3%
Wetland ecosystems	59%		3%

Problems of particular concern by those who responded were:

Flooding	27%	Loss of historical sites	6%
Excessive erosion	49%	Loss of farmland	25%
Water pollution	23%	Loss of public access	5%
Recreation overuse	11%	Recreation abuses	30%
Loss of wetlands	5%	Loss of wildlife habitat	10%
Loss fish habitat	10%	Loss environmental areas	7%
River edge level.	19%		

#### REGARDING RIVER PROTECTION MEASURES

Of those who responded, the following percent said:

Protect free flow of river	60%
Limit residential shore development	19%
Limit commercial shore development	63%
Limit industrial shore development	67%
Protect scenic areas	74%
Protect water quality	84%
Provide public access	47%
Provide recreation facilities	41%
Protect wildlife habitat	78%
Protect fisheries habitat	74%
No additional protection needed	5%

The following percent said these specific steps should be taken:

Stricter enforcement	36%
Minimum setback requirements	54%
Floodplain protection regulations	46%
Purchase river corridor property	46%
Purchase river development rights	39%
Voluntary easement donation program	43%
Limit dam construction	44%
No additional protection	7%

When asked if local governments should take action to protect the river in their community:

60% said "yes" and 28% said "no"

When asked if willing to support town taxes for river protection:

44% said "yes" and 28% said "no"

The most concerns expressed in added comments were, in decreasing order of frequency:

- Boat speed noise, wash, erosion
- Bank erosion from any cause
- Dumping junk or refuse
- Water level fluctuations
- Water quality degradation

\*\*\*\*\*

#### IV. OTHER SUPPORTING INFORMATION

Explanation: In addition to the information provided on this nomination form, sponsors are encouraged to submit any other information which they believe will support the nomination of the river. This information may include a visual presentation (for example, a slide program or a map showing the location of significant resources) or studies and reports on the river.

Instructions: List what, if any, additional supporting information has been submitted with this river nomination.

\*\*\*\*\*

The Connecticut River Agenda for the Year 2000 is the record of the Bridges for Tomorrow Conference sponsored by the New Hampshire and Vermont Commissions in November 1989. At the conference, nomination of the River under the New Hampshire Rivers Management and Protection Program was first placed on the Commission agenda. The Agenda is included as part of the nomination.

The Connecticut River Valley Resource Commission of New Hampshire has published the Connecticut Valley Inventory Volumes I and II which inventory selected resources in the watershed. These documents are found in Appendices A and B.

Additional appendices contain selected inventory lists for the Vermont side of the River.

\*\*\*\*\*

## V. RIVER CLASSIFICATIONS

Explanation: Each river or river segment that is designated by the state legislature will be placed into a river classification system. This classification system consists of four categories: Natural, Rural, Rural Community, and Community Rivers. Refer to the DES publication "A Guide to River Nominations," for a complete description and explanation of the river classification system and the instream protection measures which have been adopted by the state legislature for each classification. In this part of the nomination form, DES and the State Rivers Management Advisory Committee are interested in learning which river classification(s) you believe is most appropriate for your river.

Instructions: For each classification criteria listed below (a-d), check the one box which most accurately describes the nominated river or segment.

### (a) General Description

The river or segment is free-flowing and characterized by high quality natural and scenic resources. The river shoreline is in primarily natural vegetation and the river corridor is generally undeveloped and development, if any, is limited to forest management and scattered housing. (Natural Rivers)

[X] The river or segment is adjacent to lands which are partially or predominantly used for agriculture, forest management, and dispersed or clustered residential housing. Some instream structures may exist, including low dams, diversion works, and other minor modifications. (Rural Rivers)

The river or segment flows through developed or populated areas of the state and possesses existing or potential community resource values such as those defined in official municipal plans or land use controls. The river corridor has mixed land uses. The river or river segment is readily accessible by road or railroad and may include impoundments or diversions. (Rural Community Rivers)

The river or segment flows through populated areas of the state and possesses actual or potential resource values such as those identified in official municipal plans or land use controls. The river corridor has mixed land uses and may include urban centers. The river or river segment is readily accessible by road or railroad, and may include some impoundments, diversions, or potential sites for new impoundments. (Community Rivers)

### (b) Length

The river or segment is at least 5 miles long. (Natural Rivers)

[X] The river or segment is at least 3 miles long. (Rural Rivers)

The river or segment is at least 3 miles long. (Rural Community Rivers)



The river or segment is at least 1 mile long. (Community Rivers)

(c) Water Quality

- [ Under the state's water quality standards, the actual water quality of the river or segment is Class A. (Natural Rivers)

Under the state's water quality standards, the actual water quality of the river or segment is Class B. (Rural, Rural Community, and Community Rivers)

Under the state's water quality standards, the actual water quality of the river or segment is less than Class B.

(d) Distance to Roads

The minimum distance from the river shoreline to a paved road open to the public for motor vehicle use is at least 250 feet, except where a vegetative or other natural barrier exists which effectively screens the sight and sound of motor vehicles for a majority of the length of the river. (Natural Rivers)

There is no minimum distance from the river shoreline to an existing road. Roads may parallel the river shoreline with regular bridge crossings and public access sites. (Rural, Rural Community, and Community Rivers)

2. Based on the boxes checked above, and your knowledge of the river or segment, identify those segments of the river which you believe should be classified as either a Natural, Rural, or Community River (for example: Natural River: headwaters to the Town of ABC town line; Rural River: Town of ACB town line to the state border). Although a river or segment may be given more than one classification, the number of differently classified segments should be kept to a minimum. If your recommendation is incompatible with any of the above-listed criteria for a particular river classification, and you believe the classification is nevertheless appropriate and justified, explain why.

\*\*\*\*\*  
Colebrook working group

Rural River: Outlet of Fourth Connecticut Lake to a point .3 miles above Second Connecticut Lake Dam. 8.7 miles. (Maps 2-6)

2. Community River: A point .3 miles above Second Connecticut Lake Dam to a point .3 miles below Second Connecticut Lake Dam. 0.6 miles. (Map 6)
3. Rural River: A point .3 miles below Second Connecticut Lake Dam to a point .3 miles above First Connecticut Lake Dam. 6.8 miles. (Maps 6-8)
4. Community River: A point .3 miles above First Connecticut Lake Dam to a

point .3 miles below First Connecticut Lake Dam. 0.6 miles. (Map 8)

5. Rural River: A point .3 miles below First Connecticut Lake Dam to a point .3 miles above Murphy Dam. 7.8 miles. (Maps 8-10)
6. Community River: A point .3 miles above Murphy Dam to downstream boundary of Exhibit L for the Baldwin Dam license. 2.3 miles. (Map 10)
7. Rural River: Downstream boundary of Exhibit L for Baldwin Dam license to Bishop Brook in Stewartstown, NH. 5.7 miles. (Maps 10-12)
8. Community River: Bishop Brook in Stewartstown, NH to confluence with Leach Creek in Canaan, VT. 3.8 miles. (Maps 12-13)
9. Rural River: Leach Creek confluence in Canaan, VT to confluence with Wheeler Stream in Brunswick, VT. 24.2 miles. (Map 13-19)
10. Natural River: Wheeler Stream in Brunswick, VT to Maidstone-Stratford bridge. 7.8 miles. (Maps 19-20)
11. Rural River: Maidstone-Stratford bridge to the confluence of the Upper Ammonoosuc River in Northumberland. 8.7 miles. (Maps 20-22)
12. Community River: Upper Ammonoosuc River confluence to and including the breached Wyoming Valley Dam in Northumberland. 3.1 miles. (Map 22)
13. Rural River: Just below the breached Wyoming Valley Dam in Northumberland to a point .3 mile upstream from Gilman Dam (upstream boundary of Exhibit L). 19.6 miles (Maps 22-28)

#### Littleton working group

14. Community River: A point .3 miles upstream from Gilman Dam to a point .3 miles downstream from Gilman Dam (boundaries of Exhibit L). 0.6 miles. (Map 28)
15. Rural River: A point .3 miles downstream from Gilman Dam to .4 miles upstream from Moore Dam (upstream boundary of Exhibit L). 10.2 miles. (Map 31)
16. Community River: A point .4 miles upstream from Moore Dam to .6 miles downstream from Moore Dam (boundaries of Exhibit L). 1.0 miles. (Map 31)
17. Rural River: A point .6 miles downstream from Moore Dam to a point .3 miles upstream from Comerford Dam (upstream boundary of Exhibit L). 9.5 miles. (Map 34)
18. Community River: A point .3 miles upstream from Comerford Dam to .2 miles downstream from the McIndoes Falls Dam (downstream boundary of Exhibit L). 2.3 miles. (Map 34)

19. Rural River: A point .2 miles downstream from McIndoes Falls Dam to .3 miles upstream from Ryegate Dam (upstream boundary of Exhibit L). 3.4 miles. (Maps 34-35)
20. Community River: A point .3 miles upstream from Ryegate Dam to .2 miles downstream from Ryegate Dam (boundaries of Exhibit L). 0.5 miles. (Map 35)
21. Rural River: A point .2 miles downstream from Ryegate Dam to the confluence with the Ammonoosuc River in Bath. 3.8 miles. (Maps 35-37)
22. Community River: Confluence with the Ammonoosuc River to the point where Routes 135 and 10 meet, south of Woodsville in Haverhill. 1.9 miles. (Map 37)

#### Norwich working group

23. Rural River: Point where Routes 135 and 10 meet in Haverhill to Dothan Brook in Hartford, VT. 44.3 miles. (Maps 37-48)
24. Community River: Dothan Brook in Hartford, VT to .3 miles downstream from Wilder Dam (downstream boundary of Exhibit L). 1.3 miles. (Map 48)
25. Rural Community River: A point .3 miles downstream from Wilder Dam to the Lebanon/Plainfield town line. 4.7 miles. (Maps 48-50)

#### Windsor Working Group

Rural River: The Lebanon/Plainfield town line to the outlet of Blow-Me-Down Brook in Cornish. 9.1 miles. (Maps 50-52)

Rural Community River: The Blow-Me-Down Brook outlet in Cornish to just north of Chase Island. 1.9 miles. (Maps 52-53)

28. Rural River: Just north of Chase Island to the southern boundary of the confluence with the Williams River in Bellows Falls (Rockingham), VT. 22.7 miles. (Maps 53-59)
29. Community River: Confluence with Williams River in Rockingham, VT to the outlet of the Saxtons River in Westminster, VT. 3.4 miles. (Maps 59-60)

#### Brattleboro working group

30. Rural Community River: Saxtons River outlet in Westminster, VT, to just below the bridge between Westminster Station, VT and Walpole, NH. 3.1 miles. (Maps 60-61)
31. Rural River: Just below the bridge between Westminster Station, VT and Walpole, NH to the Brattleboro/Dummerston, VT, town line. 16.7 miles. (Maps 61-66)

32. Rural Community River: Brattleboro/Dummerston, VT town line to Sprague Brook in Hinsdale, NH. 8.7 miles (Maps 66-68)

Community River: Sprague Brook in Hinsdale, NH to 0.2 miles downstream from the Vernon Dam (downstream boundary of Exhibit L). 1.4 miles (Map 68)

Rural River: A point 0.2 miles downstream from Vernon Dam to the Massachusetts border. 5.3 miles. (Maps 68-69)

The reasoning behind selection and classification of each segment is presented in a separate "findings" document. Five segments are shorter than the length standard for their classification. One segment Segment 27 which is a Rural Community segment of 1.9 miles in length. This segment is in the vicinity of Windsor, Vermont, which is a developed area near the River, and Cornish, New Hampshire, which is an entirely rural area on the other side of the river. Above and below this segment, land use becomes rural. The working group and the Commissions felt there was no justification for lengthening the Rural Community classification in either direction.

The other four, Segments 2, 4, 14, and 20, are Community segments around dams in predominantly rural areas. In these segments, development is concentrated around the dam sites, and the Commissions voted to include only the developed areas in the Community classification. This area is designated by Exhibit L in FERC permits, thus boundaries of the segments were chosen to approximate Exhibit L.

\*\*\*\*\*

## RESOURCE ASSESSMENT

### Map

A map of the river must be appended to this resource assessment. This map should be taken from a US Geological Survey quadrangle (scale 1:24,000) and should include an inset or locator map showing the location of the river within the state.

\*\*\*\*\*  
USGS quadrangle maps, photocopied onto 68 8.5 x 11 inch pages are attached to this nomination. These maps show the boundaries of working groups and river segments as well as inventory features. A legend and segment locator map can be found at the beginning of the map section. Rough maps prepared by working groups are available for study upon request.

\*\*\*\*\*  
A

### 1. Natural Resources

#### (a) Geologic Resources

Briefly describe the significant geologic resources of the river and river corridor, including any unique or visually interesting features such as waterfalls, unusual rock formations, and areas of rapids. Indicate if the state geologist or a recognized national or state resource assessment has identified these geologic resources as significant at a national, regional (New England), state, or local level.

\*\*\*\*\*  
The Connecticut River Valley is an artifact of more than 350 million years of erosion in the Appalachian mountain region. During this time, precursor streams or the River itself have participated in the removal of up to 6 miles of the continental crust of the earth. The configuration of the River, as we know it, has been in place for more than 2 million years.

A variety of metamorphic and igneous plutonic rocks underlie the River itself. These rocks range from about 445 million years old to about 180 million years old. The metamorphic rocks were deposited in ancient ocean basins as sediments and volcanic rocks and then buried at great depth and subjected to high pressure and temperature to transform them into their present form. The plutonic rocks were emplaced as molten magmas and gradually cooled beneath the earth's surface.

The River course weaves back and forth across the rock units and belts strongly influenced by faults which dislocate the rocks and create zones of weakness. Three major episodes of faulting contribute to weakness in the rocks which have eroded more quickly than surrounding rocks, leading to the general shape of the Valley and directional trend of the River.

Although there is evidence of the ice sheets that covered the valley during the Wisconsin ice age which ended about 10,000 years ago, the general shape of the Valley was determined before the ice ages began. The Valley is

internationally renowned in the research of glacial geology for the deposition of sediments that occurred in Lake Hitchcock as the ice sheet receded. Lake Hitchcock was formed by a resistant dam in the area of Middletown, Connecticut and ultimately grew to about the latitude of Bath, New Hampshire before the dam was cut through and the lake drained. While the lake existed, sediments were carried to the lake by tributaries and deposited in the quiet waters. The valley floor is now covered by extensive deposits of sand, silt, clay, and conglomerate.

Bedrock exposures and cuts within the surficial deposits are among the geologic education assets of the River Valley. These features have always been of great importance to the teaching programs of the academic institutions concentrated in the valley. The rock exposures contain most of the surface manifestations of the events that have shaped the last 450 million years of geologic history of the region. These exposures will remain as the principal source of observation and collection to continue scientific research and refinement of the geological history of the Appalachian mountain building belt. The river course is important to scientists in developing quantitative models of erosional dynamics such as meandering. The sedimentary deposits of Lake Hitchcock provide a record of lake chronology, a source of information about crustal rebound as the ice receded, and a source of data about global climate change. The geochemistry of rock units along the river in some cases provides unique habitats for endangered plant communities.

The most important economic geologic resource of the Valley is the sand and gravel deposits related to Lake Hitchcock. They are extracted in a number of gravel pits along the river, some of them quite close. One major user of these resources near the river today is the aggregate quarry at West Lebanon, where greenstone basalt is exploited for construction. Beyond the River Corridor, but within five miles of the river there are old mines or areas which have been prospected for minerals such as base metals, soapstone, mica, fluorite, and molybdenite. Gold is panned from tributaries in the Gardner Mountain mineral belt in Littleton, Monroe, Lyman, and Bath. None of these sites are of economic importance today. The rocks of the Gardner Mountain mineral belt have the highest potential for discovery of important mineral reserves close to the river.

The geologic history of the region has resulted in the formation of various aquifers in the Connecticut River Basin. These aquifers include stratified drift, glacial till and bedrock aquifers. Stratified drift aquifers consist of stratified or layered deposits of gravel, sand, silt and clay that occur chiefly in the bottoms of the numerous stream and river valleys that comprise the river basin. Glacial till aquifers consist of an unsorted mixture of clay, silt, sand, gravel and boulders that overly the area's bedrock. Bedrock aquifers comprise most of the river basin, exclusive of the stratified and till aquifers. - The Aquifer map in the Connecticut Valley Inventory Volume II shows the general location of aquifers within the New Hampshire portion of the Connecticut River Basin.

Most of the aquifers located in the river corridor have low to medium yield capability. Low yield aquifers may yield sufficient water to wells for domestic and light commercial use. Medium yield aquifers may yield sufficient

quantities of water for small municipal or rural water districts and commercial and light industrial use. The areas of high yield aquifers include much of the River Corridor in Colebrook, Columbia, and Stratford, NH as well as Canaan, Lemington, and Bloomfield, VT. Other high yield sections are located in Hanover and Walpole, NH and Concord, Bradford, Norwich, and Windsor VT. High yield aquifers should yield sufficient quantities of water to meet or augment municipal and industrial requirements.

\*\*\*\*\*

## **(b) Wildlife Resources**

(1) List the species of mammals and birds commonly found in the river and river corridor.

\*\*\*\*\*

The Connecticut River corridor provides a wide variety of habitats for wildlife. Its 240 mile course through New Hampshire drops 2400 feet from its source to the Massachusetts border, and travels through boreal spruce/fir forests in the headwaters, northern hardwood and mixed forests in the central sections, and drier oak forests in the southernmost part of the state. While the River Valley is quite narrow along much of its length, in some sections broad meanders traverse rich agricultural lands and remnant bottomland forests. Fragments of old river channels in these intervalles provide an interesting diversity of wetlands.

The diverse habitats of the River corridor in New Hampshire provide breeding habitat for nearly 300 species of native vertebrate animals. Some species, such as the American crow, white-tailed deer, and American toad utilize a variety of habitats within the corridor. Others restrict their activities to very specific habitat types, such as rails in emergent wetlands. Still others need different habitats at different times of year. Painted and snapping turtles use aquatic or wetland habitats for most of their activities, but require open areas of loose sandy soil nearby in which to lay their eggs. A number of amphibians require vernal pools for breeding in early spring.

While the distribution of some species extends throughout the corridor, others are restricted to the northern or southern sections only. Most native mammals occur throughout the corridor's length, but gray foxes and opossums are southern in their distribution, while lynx and pine marten are northern. Birds such as black-backed and three-toed woodpeckers, spruce grouse, common goldeneyes, ring-necked ducks, and gray jays nest only in the northern forests, while wild turkeys, yellow-billed cuckoos, tufted titmice, blue-gray gnatcatchers and prairie warblers occur only along the more southern reaches of the River.

(From Connecticut Valley Inventory volume II and provided by the Audubon Society of New Hampshire.)

### **Mammals**

Most of the common mammals of New Hampshire and Vermont live in the Connecticut River corridor. A complete listing is found on pages 30 and 31 of

the Connecticut Valley Inventory Volume II.

#### Birds

Most of the common birds of New Hampshire and Vermont live in the Connecticut River corridor. A complete listing is found on pages 32-36 of the Connecticut Valley Inventory Volume II. The following birds should be added to the list:

Canada goose  
Blue winged teal  
Turkey vulture  
House finch  
Carolina wren  
Mockingbird  
Cardinal  
Field sparrow

\*\*\*\*\*

(2) List any endangered or threatened animals which are supported by the river and river corridor environment. Include location, if known. Check whether these animals are endangered [E] or threatened [T] species and if they are significant at a national [N] or state [S] level.

\*\*\*\*\*  
The length of the Connecticut River means that it passes through a great variety of bedrock and habitat types. This fact coupled with the ecological variations that are common to all river corridors, means the Connecticut Valley is host to a number of endangered species. For a list of New Hampshire's endangered and threatened animals, see the list in the Connecticut Valley Inventory Volume I. Vermont's list is located in Appendix C.

One animal species is missing from Volume I. It is the federally endangered Alasmidonta heterodon, the Dwarf Wedge Mussel. The largest population of this species lives in the Connecticut between the Wilder Dam and Bellows Falls.

\*\*\*\*\*

(3) Is the river corridor important for the movement of wildlife between large habitat areas? If yes, explain why.

\*\*\*\*\*  
"Because of its great length, north-south course, and geographic location in the northeast, the Connecticut River is an important travel corridor for migratory birds. Waterfowl migrations are especially prominent, and the wetlands and agricultural lands in the River Valley provide critical feeding and resting areas for migrating ducks and geese. Maintaining natural habitats is especially important in the River corridor, where migrating songbirds depend on native seeds, fruits, and berries, and early spring insects for food during their journeys, and on natural vegetation for protective cover."  
(From Connecticut Valley Inventory volume II and provided by the Audubon Society of New Hampshire.)

\*\*\*\*\*



(c) Vegetation/Natural Communities

(1) List the plant species commonly found in the river and river corridor.

\*\*\*\*\*  
 The geological history of the Connecticut River Valley created the "building blocks" which support the diverse plant communities in the River corridor today. Geological events, such as glaciation, and cultural events, such as the settlement and use of the River valley environment by humans, have been the driving forces behind the ecological makeup of this area. Extensive clearing of the lowlands and watershed areas of the River for farming in the mid-1800s left a largely second or third-growth forest cover in those areas of the Valley not in crops, residential, or commercial/industrial use.

The major vegetation regions in the Connecticut River Valley are:

- \* Northern Hardwood-Oak-Hickory Forest - in the lowlands associated with the River;
- \* Northern Hardwoods Forest - in more upland regions, except in the region south of St Johnsbury where this forest type dominates down to the banks of the River;
- \* Spruce-Fir Coniferous Forest - dominating the River corridor in the northern reaches.

Below are plant species commonly associated with these vegetation communities

**Northern Hardwoods**

(first three dominant on well-drained, rich soils)

Sugar Maple  
 Beech  
 Yellow Birch

(present in lesser quantities)

Basswood  
 Red Oak  
 White Ash  
 Hemlock  
 White Pine  
 White Birch  
 Quaking Aspen

(Poorly drained areas and bottomlands)

Red Maple  
 Butternut  
 Eastern Cottonwood  
 Silver Maple --  
 Shadbush

(understory)

mountain maple  
 striped maple  
 hobblebush

(herb layer)

Trillium  
Bloodroot  
Foamflower  
Starflower  
Hepatica  
Trout Lily  
Lady's Slipper Orchid  
Sarsaparilla  
Gentian  
Wood Aster  
Ferns, Club Mosses, Horsetails

#### Coniferous Forests

(Dominant)

Red Spruce  
Balsam Fir

(present in lesser quantities)

Paper Birch  
Red Pine

(understory)

Mountain Maple  
Hobblebush  
Mountain Ash

(herb layer)

Goldthread  
Shinleaf  
Partridgeberry  
Trailing Arbutus  
Bunchberry  
Clintonia  
Twinflower  
Spinulose Woodfern  
Bristly Club Moss  
Pink Lady's Slipper

\*\*\*\*\*

(2) List any endangered or threatened plant species that are supported by the river and river corridor environment. Include location, if known. Check whether these plants are endangered [E] or threatened [T] species and if they are significant at a national [N] or state [S] level.

\*\*\*\*\*

Endangered and threatened plant species in New Hampshire are listed in the Connecticut Valley Inventory Volume I. Vermont species are listed in Appendix D.

Of special interest is Astragalus robbinsii var. jesupii, Jesup's Milk-vetch, a

federally listed endangered species. The only know occurrences are along the Connecticut River, particularly between Wilder Dam and Bellows Falls.

\*\*\*\*\*

(3) List any vegetative communities supported by the river and the river corridor environment which have been identified as "exemplary natural ecological communities" by the New Hampshire Natural Heritage Inventory. Include location, if known.

\*\*\*\*\*

Associated with the broad vegetation community types noted above are specific areas found in the River corridor that are considered to be significant because of their uniqueness and species composition. These types of habitat provide some of the rarest and most remarkable ecological communities in all of New England.

- \* Floodplain Forests - dense canopies of seasonally-flooded riverside forest provide nesting sites for unusual warblers, Bald Eagles. Ostrich Fern and Green Dragon inhabit the forest floor.
- \* Riverside seeps and outcrops - Gravelly and sandy bank areas kept moist by seeping groundwater host some of the rarest plants in New England including the Jesup's Milkvetch - a species found in only three places in the world.
- \* Calcareous wetlands - Many rare orchids inhabit these calcium-rich areas.
- \* Old-growth forests - Rare patches of enormous Sugar Maples, White Pines, and Basswoods that survived the long history of land clearing and logging in the region.
- \* Steep, rocky cliffs - Revealed by the River as it changed course over time, these unusual and harsh habitats support several unique plant species.

Ecological communities listed by the New Hampshire Natural Heritage Inventory are noted in the Connecticut Valley Inventory Volume I. Communities listed in Vermont are noted in Appendix E.

\*\*\*\*\*

#### (d) Fish Resources

(1 List the fish species commonly found in the river.

\*\*\*\*\*

Most of the fish species commonly found in New Hampshire and Vermont live in the Connecticut River. For a listing of these species, see the Connecticut Valley Inventory Volume I.

\*\*\*\*\*

(2) List any endangered or threatened fish species supported by the river environment. Check whether these fish are endangered [E] or threatened [T] species and if they are significant at a national [N] or state [S] level.

```
*****
Fish Species      Location      E or I      N or S
Round Whitefish      E              S
*****
```

(3) Describe the presence and location of spawning beds, feeding areas, and other significant habitat.

```
*****
The Connecticut River provides significant habitat for fish over its length.
There are spawning and feeding habitats for all types of fish. Some species
live in the River and migrate to tributaries to spawn.
*****
```

(4) Indicate whether the significant fisheries found in the river rely on natural reproduction or a stocking program.

```
*****
Warm water fisheries are entirely natural, while populations of cold water
fish are supplemented by stocking. The salmon restoration program relies on
stocking and other intense human management.
*****
```

(5) Is the river a viable anadromous fish resource? If yes, identify any on-going or planned restoration programs.

```
*****
The River is the subject of a large salmon restoration project which began in
1968. The project has resulted in development of fish passage facilities at
dams along the way permitting passage as far as Bath. Facilities were
scheduled to allow fish passage up the Ammonoosuc by the end of 1990. Other
facets of this program include the White River National Fish Hatchery in
Bethel, VT and a salmon holding facility in Sunderland, MA.
*****
```

#### (e) Water Quality

(1) Check the state's water quality classification which applies to this river or segment under state law.

☐ Class A            ☒ Class B

(2) According to readily available information, what is the actual water quality of this river under the state's water quality standards?

☐ Class A            ☒ Class B            ☒ Less than Class B

(3) If the river is not currently supporting its water quality classification,

identify the existing major causes of deficient water quality (e.g., industrial or sewage pollutants, agricultural fertilizer run-off) and possible corrective measures (e.g., regulations, enforcement, local and use controls).

\*\*\*\*\*  
 The entire main stem of the Connecticut is classified B by the state legislature. Based on 1989 sampling, 120.2 miles, or about half, of the Connecticut were not fully supporting designated uses for Class B waters. Also based on 1989 sampling, 36.5 miles of river registered improvement to the point that the River there was in full compliance with Class B standards. In every case, violations were bacteriological, and in one case, dissolved oxygen standards were violated as well. Violations were attributed to municipal sources and non-point sources.

The 1990 NH 305(b) report explains some of the problems with municipal treatment systems as follows:

While the Connecticut River watershed has not yet seen the growth that southeastern New Hampshire has undergone, significant water problems remain. ...Problems remain below Colebrook and Whitefield due to disinfection practices. ...Problems with bacterial contamination due to raw discharges remain in the Sugar River in the Wendell area of Sunapee. Construction is underway to tie various discharges to the Sunapee treatment facility. ...A significant commitment has been made by industry in the Connecticut River basin to meet Best Practicable Treatment (BPT) requirements. A few industrial sources remain that have not achieved BPT. Implementation of Best Available Treatment (BAT) requirements should strengthen the goal of fishable/swimmable for this major river system.

According to the 1989 New Hampshire Nonpoint Source Pollution Assessment Report, nonpoint sources contribute to pollution in the Connecticut. In the region north of the Ammonoosuc confluence, "septic systems represent the overwhelming majority of known impairments and threats to water quality." Other sources of pollution there include land disposal sites and road salt. In the section between the Ammonoosuc and the Ashuelot, "land disposal including dumps (non-complying landfills), junkyards, and municipal landfills represented 33 percent of total impairments." Other sources included septic systems and road salt. South of the Ashuelot, impairment was attributed to municipal landfills and dumps, construction runoff, urban runoff, and uncovered road salt piles. Agricultural runoff contributes to nonpoint pollution throughout the rivers length.

While there is currently less industrial use of the main stem of the Connecticut than one might assume, several of the tributaries have long histories as working rivers. Today, some of these tributaries continue to support industry with some contributing industrial pollutants to the river.

\*\*\*\*\*

(f) Open Space

Briefly describe the significant areas of open space and the predominant types of land use in the river corridor (i.e., forest management, agriculture, industrial, residential, etc.). Describe any protected land parcels (e.g., state parks and forests, national forest lands, and conservation easements). Include location.

\*\*\*\*\*  
Open space is shown as gray shading on the accompanying maps.

## Colebrook working group

Pittsburg, NH--North of Pittsburg village, the River banks are heavily wooded. Portions of the River Corridor above First Connecticut Lake are in the Connecticut Lakes State Park and the remainder is managed forest held by private companies. Much of the shore of the Connecticut Lakes is undeveloped. Southwest of the village Route 3 is close to the River and there are occasional houses and farms, but most of the Corridor land is forested.

Clarksville, NH--The River Corridor in Clarksville is essentially entirely forested.

Canaan, VT--Above Beecher Falls the Corridor is mainly forested with a few farms. Below Canaan, land along the River is mostly agricultural.

Stewartstown, NH--South of West Stewartstown the land beside the River is mostly agricultural.

Colebrook, NH--North of Colebrook village, the land is mostly agricultural along the River.

Lemington, VT--River Corridor land in Lemington is predominantly agricultural.

Columbia, NH--Open space along the River is predominantly forested.

Bloomfield, VT--The River Corridor is mostly agricultural.

Stratford, NH--Between North Stratford and Stratford villages, riverfront land is generally forested.

Brunswick, VT--River Corridor land is generally agricultural

Maidstone, VT--River Corridor land is generally agricultural

Northumberland, NH--Land in the River Corridor is primarily agricultural and there is a conservation easement on a large dairy farm.

## Littleton working group

Guildhall, VT--Farmland predominates along the River

Lancaster, NH--The River corridor is mostly farmland north and south of town, and the Meadow farm is protected by easement.

Lunenburg, VT--There is mostly farmland along the River north of the railroad bridge and forested land to the south.

Dalton, NH--Farmland in the northern section and forested in the southern part of town including New England Power Company land near the Gilman Dam.

Concord, VT--Forested and owned by New England Power.

Waterford, VT--Generally forested and owned by New England Power.

Littleton, NH--Forested land beside Moore Reservoir and Comerford Reservoir, all owned by New England Power Company.

Barnet, VT--There is farmland along the River.

Monroe, NH--There is mostly farmland along the River.

Ryegate VT--The open space is a mixture of farmland and forest

Bath, NH--Mostly agricultural along the River

Newbury, VT--Farmland predominates along River south of Wells River.

Haverhill, NH--The land is mostly farmland along River south of Woodsville.

Norwich working group

Bradford, VT--There is agricultural land to the north and south of the village. There is an area of wetlands near the confluence of the Waits River and the Connecticut and another beside the Connecticut north of the village and east of the railroad tracks.

Piermont, NH--The River is bordered by agricultural land for most of its course through Piermont. In the northern part of town, the school lot is a town-owned, protected parcel. There is a significant wetland area where Eastman Brook enters the Connecticut. There are conservation easements on two farms north of the Bradford bridge.

Fairlee, VT--Most of the riverfront land east of the railroad tracks is agricultural. There is a significant wetland area where the Lake Morey outlet stream meets the River.

Orford, NH--Outside of the village area, the riverfront land in Orford is in agricultural use. Reeds Marsh is a significant wetland area beside the river south of the village. Conservation easements on three parcels allow right of pedestrian access to a riverside trail; one allows for picnicking on a certain area off of the riverbank.

Thetford, VT--The great majority of land along the River is agricultural. There are scattered sections of woodland near East Thetford Village and North Thetford Village.

Lyme, NH--The majority of riverfront land in Lyme north of the East Thetford

bridge is agricultural and forested. Four parcels ranging in size from 13 to 110 acres are in conservation easements.

Norwich, VT--Most of the land between the River and Route 91 is mixed agricultural and woodland. Exceptions are found in the area of Pompanoosuc village and near Norwich village. The Farrell Farm and Stickney Farm are under conservation easement. There are significant wetlands at the mouth of the Ompompanoosuc River, surrounding Lily Pond, and near the Montshire Museum.

Hanover, NH--Town zoning includes an extensive 150 foot forestry and recreation corridor along the River. The new Kendall retirement community has a 175 foot scenic easement along the River. There are protected agricultural and forested areas in town including Wilson's Landing, Fullington Farm, Storrs Pond, Pine Park, and the Mink Brook Natural Preserve. The Dartmouth campus provides significant forested open space.

Hartford, VT--The northernmost part of Hartford's riverfront is wooded and agricultural open space. Below that area, the character of the River corridor becomes more urban in Wilder village and White River Junction. Open space in that area includes the woodland and fields beside the Wilder Dam, Lyman Point Park, and Ratcliff Park. Below the Route 89 crossing, the riverfront is mixed woodland and agricultural land.

Lebanon, NH--Above the Wilder Dam, the City of Lebanon owns parkland along the River. New England Power owns forested open land beside the dam. Coburn Park, a 16 acre unnamed section, and Chambers Park create a contiguous stretch of woodlands beside the River. The Lebanon sewage treatment plant property includes wooded open space north of the confluence with the Mascoma River. Across the Mascoma River and behind the K-mart Plaza is an area of wooded city property. Near the border with Plainfield, the River is bordered by agricultural land.

Windsor working group

Hartland, VT--Hartland has four major properties (two public, two private) within the River corridor that provide open space amenities for the town. The North Hartland Flood Control Dam is the largest recreation area, occupying more than 570 acres, plus an additional 160 acres in easement. Picnic areas are provided, and the open space around the dam is available for public use. This area is on the Ottauquechee River, just upstream of the confluence with the Connecticut. The Fish and Game area at the mouth of Lull's Brook consists of 27 acres, but at present affords only rather difficult access to the Connecticut River. Sumner Falls is kept open by the New England Power Company is heavily used by picnickers, canoeists, kayakers, and anglers. The Hartland Conservation Commission recently purchased the development rights to Green Acres Farm, 280 acres, which will protect floodplain forest and provide public access to and along the River.

Plainfield, NH--Plainfield's riverfront area is entirely open space. The northern half of the town's River corridor is primarily agricultural while the southern portion is primarily forested. There are scattered houses along this section. One section of woodland is owned by the New England Wildflower Society.



Windsor, VT--The most important open space is located on Redick's Farm which has a field of approximately 160 acres.

Cornish, NH--Virtually the entire eastern side of the River through the town of Cornish is sparsely built on and is therefore open space.

Weathersfield, VT--Wilgus State Park protects land along the River. South of the park, most of the land is agricultural. A farm on the Weathersfield Bow is protected by an easement. The slopes of Mount Ascutney are forested and are significant for the River even though they are outside of the Corridor.

Claremont, NH--Agricultural use of the shoreland predominates along about two-thirds of the riverfront in Claremont. On the Upham Estate there is a stand of old growth pine. This near-virgin stand is carefully maintained by the caretakers of the estate.

Springfield, VT--Cornfields, hayfields, and sparse residential development are predominant from the Route 91 exit to the Rockingham town line. North of the exit, land use is mixed agricultural and residential. Public open space includes Hoyt's Landing and the Springfield Town Forest. Meeting Waters YMCA Camp abuts the Springfield town forest land.

Charlestown, NH--The majority of the land along the River is either New England Power Company farmland or other private ownership and is currently farmed. Next to Old Fort #4, the town operates Patch Park, a recreation facility consisting of athletic fields and a picnic area next to the beach. The boat club provides a stairway down the embankment for boat access.

Rockingham, VT--Open space that is available for public use includes the Bellows Falls municipal forest, Upper Meadows owned by New England Power, Dorand State Forest, Herrick's Cove recreation area owned by New England Power, and woodland on Randall Hill Road owned by the Connecticut River Watershed Council. Private open space includes former Steamtown USA land, New England Power's agricultural land at the Rockingham/Springfield town line, and woodland on Coburn Hill.

Brattleboro working group

Westminster, VT--South of the village area, except where Route 5 and the railroad are closest to the river and in the industrial zone in Westminster Station, land along Route 5 is agricultural.

Walpole, NH--There are two municipally owned protected parcels in Walpole, one just south of the confluence of the Cold River. The other is called Mason Forest. North and south of North Walpole village the land is forested. Land south of the mixed residential area near the mouth of Cold River and along River Road is generally agricultural.

Putney, VT--River View Farm is conserved land. The farm is reputed to be the largest sheep farm in New England. North of River View Farm is Great Meadows, 100 acres of the finest agricultural land in Windham County. The remaining land in the River Corridor is agricultural except for the residential section near East Putney Station and the commercial area near Exit 4 and Putney

village.

Westmoreland, NH--Land along the River Corridor is generally agricultural with forests in the northern part of town and near the County Complex.

Dummerston, VT--Close to the River and the railroad, the land is agricultural in the northern part of town. The southern third of town is forested or agricultural.

Chesterfield, NH--There is municipally-owned, protected land just south of Route 9 in Chesterfield. Wantastiquet Mountain, partly in Chesterfield and partly in Hinsdale, is partly State Forest and partly owned by The Nature Conservancy and its 907 acres is home to much wildlife. Land along River Road is forested and agricultural above West Chesterfield. Below West Chesterfield, agricultural land gradually squeezes to mixed residential use.

Brattleboro, VT--There are few large areas of open space in the River Corridor in Brattleboro.

Hinsdale, NH--Wantastiquet Mountain, partly in Chesterfield and partly in Hinsdale, is partly State Forest and partly owned by The Nature Conservancy and its 907 acres is home to much wildlife. Forested land continues south of the State Forest. The riverbank south of the confluence of the Ashuelot is bordered by farmlands and forests. Islands and setbacks above the Vernon Dam are important wildlife habitat. From Norman's Auto to the Vernon dam, the shoreline is wooded up to the railroad tracks, providing good wildlife habitat.

Vernon, VT--In the northern half of the River Corridor, agricultural and forested land are mixed between industrial areas. Below the mixed residential section beside the Vernon Dam the land is agricultural. Setbacks above the Vernon Dam are important wildlife habitat.

\*\*\*\*\*

#### (g) Natural Flow Characteristics

Briefly describe the natural flow characteristics of the river, including natural periodic variation in flow or, if applicable, variations caused by impoundments, significant diversions, or channel alterations. Indicate where the river is free-flowing.

\*\*\*\*\*

The Connecticut River drainage encompasses 6,974 square miles north of the Massachusetts border, 3,928 square miles in Vermont and 3,046 square miles in New Hampshire. The Connecticut begins its southward trip at over 2200 feet above sea level at Fourth Connecticut Lake and leaves New Hampshire and Vermont at under 200 feet elevation.

Generally speaking, the Connecticut River's natural flows are typical of rivers in the region. Precipitation is distributed fairly evenly throughout the year and the watershed. Flow rates are highest in spring when the snow melts, and lowest in mid and late summer when evaporation and water use by

plants are greatest.

Flow levels in the Connecticut River are altered from their natural condition by the complex interactions of dams for storage, flood control, and hydroelectric production. The New England Power Company's First and Second Connecticut Lakes as well as Moore and Comerford reservoirs are drawn down seasonally to allow them to store rainfall and runoff water to utilize its potential energy at other times. This water is released to maintain flows to the dams downstream during periods of low in-flow. The flood control dams are located on tributaries, however, the storage dams and dams with seasonal storage capacity can also contribute to flood control.

The hydroelectric dams downriver are operated when power production is requested by the New England Power Exchange which adds or subtracts power production based on demand changes through each day and through the seasons and based on using the least expensive sources of electricity possible. Calls for power also take into consideration the elevation of the impoundments, river flows, and amounts of water stored, as well as factors such as the need for water in impoundments for weekend recreation. The Wilder, Bellows Falls, and Vernon Dams, which were recently relicensed, provide minimum flows during periods when they are not generating.

The Moore, Comerford, and McIndoes Falls dams are designed to work as a unit. Moore and Comerford have large storage capacity in their impoundments and a combined generating capacity of about 350 megawatts. They are usually run for short periods of time during peak demand. The McIndoes Falls dam runs almost continuously. It is used to even out the flow in the river downstream. The other hydroelectric dams on the river have comparatively less storage capacity and are run on a run-of-the-river basis over a 24 hour period.

\*\*\*\*\*

## 2. Managed Resources

### (a) Impoundments

List all of the dams which are present in the river, including any dams which are breached or in ruins. Identify their location, ownership, and purpose (i.e., flood control, hydroelectric energy production, or storage). Include any proposals for new or reconstructed dams; indicate that this is a proposed dam by placing an asterisk (\*) next to the name of the dam.

```
*****
Name of Dam      Location      Ownership      Purpose
Third Lake       Pittsburg    NE Power       breached
Schoppe          Pittsburg    NE Power       breached
Moose            Pittsburg    State of NH     storage
Second Lake      Pittsburg    NE Power       storage: flow
                  augmentation with
                  seasonal draw-down
First Lake        Pittsburg    NE Power       storage: flow
                  augmentation with
                  seasonal draw-down
Murphy*          Pittsburg    NH Water Resources Div. storage: flow
                  augmentation with
                  seasonal draw-down
Baldwin*         Pittsburg    New England Power breached
Canaan           Stewartstown Public Service Company hydroelectric:
                  daily cycle, run-
                  of-river
Lyman Falls      Stratford    Ruben Washburn  breached
Northumberland* Northumberland James River      breached
Gilman           Dalton       Simpson Paper Company hydroelectric:
                  daily cycle, run-
                  of-river
Moore            Littleton    NE Power       hydroelectric:
                  peaking station
                  with seasonal
                  storage and draw-
                  down
Comerford        Monroe       NE Power       hydroelectric:
                  peaking station
                  with seasonal
                  storage and draw-
                  down
McIndoes Falls   Monroe       NE Power       hydroelectric:
                  peaking station,
                  daily cycle run-
                  of-river
Ryegate          Bath         Dodge Falls Associates,
                  Niagara Mohawk    hydroelectric:
                  daily cycle run-
                  of-river
Wilder           Lebanon      NE Power       hydroelectric:
```

Bellows Falls	Walpole	NE Power	peaking station, daily cycle run- of-river hydroelectric: peaking station, daily cycle run- of-river
Vernon	Hinsdale	NE Power	hydroelectric: peaking station, daily cycle run- of-river

The Moore Dam is the largest dam in New England. Its generating capacity is a substantial 200 megawatts. It is designed to operate as a unit with the Comerford and McIndoes Falls dams as described in the section above to produce significant amounts of peaking power for the New England power grid.

\*There is an application pending to convert the Murphy Dam from storage only to hydroelectric power production. There are applications pending to rebuild the Baldwin and Northumberland breached dams for hydroelectric power production. The understanding of the nominating groups is that there is no pending application for the Lyman Falls breached dam site. There have been proposals for new hydropower dams at Hart Island and Chase Island, but there are no applications pending for those sites as far as the nominating groups understand.

\*\*\*\*\*

#### (b) Water Withdrawals and Discharges

(1) List any significant water withdrawals from the river, including withdrawals for public drinking water, industry, and agriculture. Identify the purpose of the withdrawal (i.e., irrigation) and location. Indicate if the river has been identified in a state, regional, or local study as a potential source of water supply and, if so, identify the study.

\*\*\*\*\*

Most industrial users of water have both withdrawal and discharge permits. They are listed under discharges, below. Note that working hydroelectric dams also have withdrawal and discharge permits.

The following withdrawals were noted by working group members:

Stratford, NH--Washburn Lumber Company

Guildhall, VT--Bert Peaslee farm irrigates potatoes

Newbury, VT--Four Corners Farm in South Newbury uses irrigation water.

Norwich, VT--Loveland vegetable farm.

\*\*\*\*\*

(2) List all known surface water discharges to the river and identify the source, type (ex., industrial wastewater), and location of the discharge. Indicate whether the discharge has been permitted by the state (yes or no).

\*\*\*\*\*

<u>Point Source Discharge</u>	<u>Type</u>	<u>Location</u>	<u>Permit?</u>
-------------------------------	-------------	-----------------	----------------

New Hampshire Permits

Colebrook WWTP	WWTP	Colebrook, NH	Yes
Northumberland WWTP	WWTP	Northumberland, NH	Yes
Lancaster WWTP	WWTP	Lancaster, NH	Yes
Woodsville WWTP	WWTP	Woodsville, NH	Yes
Hanover WWTP	WWTP	Hanover, NH	Yes
Lebanon WWTP	WWTP	Lebanon, NH	Yes
Charlestown WWTP	WWTP	Charlestown, NH	Yes

James River	Industrial WWTP	Northumberland, NH	Yes
Cold Regions Research and Engineering Laboratory	Research	Hanover, NH	

Vermont Permits

Canaan WWTP	WWTP	Canaan, VT	Yes
Lunenburg FD#2 WWTP	WWTP	Lunenburg, VT	Yes
Wilder WWTP	WWTP	Hartford, VT	Yes
White River Junction WWTP	WWTP	Hartford, VT	Yes
Weston Heights WWTP	WWTP	Windsor, VT	Yes
Windsor Main WWTP	WWTP	Windsor, VT	Yes
Bellows Falls WWTP	WWTP	Bellows Falls, VT	Yes
Brattleboro WWTP	WWTP	Brattleboro, VT	Yes

CPM, Inc.	Paper process wastes Boiler blowdown	Vermont	Yes
Simpson Paper Company	Main sewer Mill wastes	Lunenburg, VT	
Upper Valley Press, Inc.	Treated printing and photographic process wastewater	Bradford, VT	
Ryegate Wood Energy Co.	Process wastewater	Ryegate, VT	
Pompanoosuc Mills Corp.	Boiler blowdown Water softener backwash	Pompanoosuc, VT	

The following discharges were noted by working group members:

Columbia, NH--Columbia Sand and Gravel

Newbury, VT--combined sewer overflows during storms in Wells River

Haverhill, NH--Combined sewer overflows during storms in Woodsville. Although slightly distant from the Connecticut, there is placer gold mining on the Wild Ammonoosuc which puts excess sediments into water in that tributary.

Bradford, VT--Apparent discharge north of the Piermont bridge

Hartford, VT--Eight pipes ranging in size from about 2 to about 14 inches in diameter are located in the urban areas of Wilder and White River Junction.

Charlestown, NH--Farm runoff in South Charlestown.

\*\*\*\*\*

### 3. Cultural Resources

#### (a) Historical and Archaeological Resources

List any significant historical and archaeological resources found in the river or river corridor. Identify whether the resource is listed or is eligible to be listed as a National Historic Landmark (NHL) or on the National Register of Historic Places (NRHP) or is a recognized Historic District (HD) or Multiple Use Area (MUA). If known, indicate whether these resources are significant at a national, regional (New England), state, or local level. Below this listing, note any local town histories, word of mouth, or general historical knowledge about the use of the river and its corridor.

\*\*\*\*\*  
 Listed historic resources in the River Corridor in New Hampshire are noted in tables in the Connecticut Valley Inventory Volume II. Vermont's River Corridor historic resources are tabulated in Appendix F.

The following overview of the history of the Valley was written for the Connecticut River Inventory Volume II and focused on New Hampshire. However, the broad sweep of history described here applies equally to the Vermont side

The Connecticut River Valley north of Massachusetts has a history of human occupation dating back approximately 10,000 years. The Valley remained in a mostly natural state until about 1760, when European settlement began in earnest. Much has changed in the intervening 230 years.

#### Prehistoric Archaeological Resources

There are a number of archeological sites from the Archaic (8,000-1,000 BC) and Woodland (1,000 BC - AD 1,600) periods in the Valley. Archaic settlement patterns reflect increasingly diverse and efficient hunting and gathering, especially after modern climate conditions were reached around 6,000 BC. The lifestyle focused on local woodlands, raw materials, and foodstuffs, particularly white-tailed deer and anadromous fish. Sites show a continued use of upland ponds, wetlands, and outlet streams, but also a shift to the upper terraces of rivers.

Pottery and horticulture were introduced in the Woodland Period. Settlements became larger and focused on the lower terraces of the floodplains of major rivers. Intensive farming never developed, but socio-political systems became more complex, and it is believed that with the appearance of fortified villages around AD 1,500 tribal confederacies were being formed.

Large Archaic and Woodland sites tend to occur on the first two terraces of the Connecticut River and its tributaries, often near confluences. Confluence sites are recorded in Lancaster, on the Israel River; in Haverhill near Oliverian Brook; in Hanover near Blood Brook; in Claremont on the Sugar River; in West Chesterfield at Indian Brook; and in Hinsdale at the Ashuelot River. Other large sites occur on the terraced banks of the Connecticut River in Orford, Plainfield, Charlestown, Walpole, and North Walpole.



Numerous small sites have been located on upland ponds, wetlands, and outlet streams. Examples of these are located in Pittsburg on the Second Connecticut Lake and outlet stream, in Stratford at Nash Stream Bog, and in Lyme at Post Pond. Other types of small sites include a camp at a spring in Hanover; sites on knolls in Lyme, Plainfield, and Haverhill; a rock engraving of a fish at the falls in North Walpole; and a burial in Lyme.

At the time of European contact, the Sokokis in the Valley were divided into two groups: the Coosuk in the north and the Squakeag (or Ashuelot) in the south. Historical accounts identify Coosuk sites on the Connecticut River at Columbia, Littleton, Northumberland, Stratford, and Stewartstown. The main Squakeag villages were at Northfield, MA, and at Hinsdale and Swanzey in New Hampshire. Near the mouth of the Ashuelot River, excavations have confirmed Fort Hill to be a palisaded Squakeag village.

### Early History

When European explorers arrived in the early 1600's, the Valley was inhabited by the Sokoki people of the Western Abenaki language group. These people supplemented a hunter/gatherer existence with agriculture. (Among other things, they tapped maple trees and sugared off the sap.) They apparently lived at least part of the time in palisaded villages on bluffs in the intervalles (the broad areas where the Valley opens out). One guess at the population of the Valley is 3,800 people.

In the 1630's, most of the Sokokis were decimated by smallpox and other European diseases caused by contact with fur traders. For the next several decades, the remaining Sokokis were subject to the ravages of war with the Iroquois, who were expanding their hunting grounds in search of the disappearing beavers. The fur trade in the Valley peaked in 1654, but continued into the 1660's, tapering off when there wasn't much left to trade for. By about 1675 the Valley was unoccupied, and for the most part it remained so until about 1760, when the wars among the British, French, and Indians finally ground to a halt.

The earliest permanent European settlement took place in 1743, at Fort #4, in what is now Charlestown. The fort was subject to frequent raids, and was temporarily abandoned in 1746. It was reoccupied in 1747, and the town of Charlestown was chartered in 1753, but the fort continued in active use until 1760, when the British took Montreal, ending the French and Indian wars.

With the ending of the wars, the first wave of settlers came into the Valley. Among those places first occupied were the major intervalles, Charlestown being one, and the Coos ("river meadow") intervalle in the Haverhill area another. The first two major roads into Vermont started at these intervalles. The Crown Point Road, built in 1760, crossed from Charlestown to southern Lake Champlain. The Bayley-Hazen road, built in the late 1770's, went north and west from Haverhill.

Outside of the prime intervalle lands, settlement from 1760 through the late 18th century was mostly in the form of self-sufficient hill farms. These were eventually accompanied by widely scattered local sawmills and gristmills.

Dartmouth College was also founded during this period, in 1769. As the century drew to a close, the age of self-sufficient farming also began to wane, and agriculture changed to become more cash-crop oriented. Part of the change in agriculture was reflected in a large increase in growing sheep, and by the 1820's local water-powered fulling and carding mills were widespread. Many smaller towns in the Valley reached their peak population in about 1830, as people subsequently came down off the hill farms and went west to richer agricultural lands. Many of those who stayed in the area also moved down into the Valley towns, as local industry became a more important part of the economy.

During the late 18th and early 19th centuries a number of other accoutrements of European civilization came to the Valley, mostly to enhance transportation of people and goods. In the 1790's and early 1800's a system of canals was built on the lower Connecticut River, allowing navigation upstream as far as Bellows Falls. In 1802, a canal was built bypassing Bellows Falls, and in 1810 canals were opened at Sumner Falls in Cornish, and White River Falls in Lebanon, completing the system and allowing access upstream to the head of navigation at Woodsville.

Logging has been an important activity since European settlement, especially in the north country, but in the era of the canals there was a legal requirement that logs be rafted. This restricted the logging industry until the railroads displaced the canals in the 1850's. The River was then open to the great logging drives, which took place until 1915.

The canals enhanced transportation and communication with the Springfield, Massachusetts and Hartford, Connecticut area. This was in keeping with the origin of the early settlers, many of whom came up the River Valley from Connecticut. But the canals were in competition with a number of early roads, which were built in an attempt to orient the area more towards Boston. Turnpikes were built from Boston to Walpole, Claremont, and Lebanon in the early 1800's. Neither the River nor the turnpikes dominated the trade routes. The turnpikes were slow and expensive, but the River was slow as well, and the canal fees high.

### Coming of the Railroads

All of this changed in mid-19th century with the advent of the railroads. The coming of the railroads was swift and thorough, and brought a new way of life with it. In 1847 the Northern Railroad was completed from Boston to Concord, NH, to Lebanon. The next year, a bridge was completed across the River to White River Junction. In 1849 the Cheshire Railroad was completed from Boston through Fitchburg, MA, to Keene and Bellows Falls. In 1850 the rail connections ran north to St. Johnsbury, and by 1851 there were complete connections through from Boston to Montreal. In 1853, the Grand Trunk railroad was completed, running from Montreal to Portland, ME, crossing the Connecticut River at North Stratford.

The railroads changed the basic patterns of land use and economic activity in the Valley. Much of what we see today still reflects the "opening up" of the Valley due to the onset of good access to the rest of the world via decent

transportation.

Extractive industries swung into high gear. Stone, minerals, pulp wood and lumber all became important exports. Manufacturing enterprises were no longer dependent on local markets. New manufacturing centers grew up in areas with a combination of water power and rail access. Woodworking and metal working factories sprang up, as did numerous larger textile mills. Precision metal working began its growth in the Charlestown/Claremont/Windsor area.

The new opportunities for work slowed the exodus of young men and women from the hill farms, as many found work in the growing industrial towns. The opportunities also sparked a new wave of immigration, with people from different nations and ethnic groups arriving in significant numbers for the first time, bringing their skills with them.

The railroads also eventually made the dairy industry the dominant form of agriculture. Access to metropolitan markets, especially overnight access for fresh milk, changed the dairy cow from one component of a typical small farm to a primary producer of exported products.

The tourist business got a great boost, and its real start, from the railroads as well. In the 1850's and 1860's there was a fad for mineral-spring spas in the mountains adjoining the Valley, and a number of large hotels were built. People came in numbers to enjoy the cool mountain air, and partake of the waters.

These changes set the basic pattern for growth and activity until well into the 20th century. Even today, we can recognize the Valley the railroad created:

- o We have traded in the railroads for highways, but the major highways mostly parallel the major rail routes.
- o Logging (now called "timber management") continues to be an important activity, and timber companies are major landholders.
- o We are near the end of the manufacturing era sparked by the railroads. Many Valley towns struggle, along with the rest of New England and much of the nation, to find a clear direction to a healthy post-industrial economy.
- o The dairy industry declines slowly, but the major share of New Hampshire's remaining dairy farms are found in the Connecticut River Valley.
- o Tourism assumes an ever-greater importance to the Valley economy. In addition to summer visitors, tourists now visit in the Fall to view the foliage and in the Winter to ski. Second homes have become a significant source of jobs and municipal tax revenue in parts of the Valley.

Looking back, then, we find the history of the Connecticut River Valley

divided broadly into three parts. First, the era from pre-historic times to roughly 1760. Second, the period of early settlement and local agriculture. Third, the industrial age, starting in mid-19th century and continuing up to the present.

The working groups identified historic resources that were important to each town although they may not be formally identified as historic sites.

Colebrook working group

Pittsburg, NH--Indian Stream Republic historical marker on the town common  
Covered bridge.

Stewartstown, NH--45th parallel marker about a quarter mile north of West Stewartstown village on Route 3.

Columbia, NH--Covered bridge to Lemington, VT. There is also an old pier in the River left over from the logging days.

Stratford, NH--Historical marker commemorating the log drives on the Connecticut River just south of North Stratford village.

Northumberland, NH--Old ruins of Fort Wentworth on Potter Farm (private property). There is a historical marker on the Fort that sits just across Route 3 at the Old Meeting House building.

Brunswick, VT--Brunswick springs with its seven minerals and the ruins of the old hotels that legend states have fallen victim to an Indian curse on the site.

Maidstone, VT--There is an old Maine Central Railroad abutment in the River approximately one mile from the Brunswick town line. The privately owned Maidstone-Stratford Hollow bridge dates back to the 1890's.

Littleton working group

Guildhall, VT--Traditional town common surrounded by older buildings. Old railroad bridge stone arch in a field. Old cemetery near River opposite North Road intersection. Old cemetery in South Guildhall. Old Abenaki settlement on bluff above Call property.

Lancaster, NH--Marker indicates site of first Weeks cabin (old Lancaster family) near the River. Stockwell Farm marker.

Dalton, NH--Abutments mark site of old ferry to Lunenburg. Below current railroad crossing and visible when the water is low are the pilings for the original railroad bridge. This area was the head of 15-Mile Falls before the dams were built. Half a mile below the railroad bridge, a channel was blasted out of the rock to aid the logging drives. It is visible at low water. The site of the Sumner House, a 19th century hotel is located near the intersection of Route 135 and Simons Road.

Waterford, VT--The Rabbit Hill section of historic buildings includes an old meeting house.

Monroe, NH--A narrow spot in the River was famous for jams during the log drive era.

Bath, NH--In the narrows there was a dance hall on pontoons in the River during the Gay 90's. Bath-Haverhill covered bridge. The narrows was also a log jam site during the days of the drives.

Newbury, VT--Site of Roger's Rangers fort at the confluence with the Wells River. Indian Joe's cave (Indian Joe helped the early settlers according to town legend). Indian settlements excavated by the University of Vermont. Height of navigation for river boats coming upstream; goods were transferred to land transportation in Wells River and Woodsville.

Haverhill, NH--The Cornerstone project includes 54 historic houses. Important train line crossing from Woodsville to Wells River. Railroad bridge had a car bridge below it.

Norwich working group  
Bradford, VT--Bradford Academy

Piermont, NH--The Schmid round barn on Route 10. There were 5 or 6 water powered mills on Eastman Brook within the River corridor.

Fairlee, VT--Old mill site on the outlet of Lake Morey near Route 5.

Orford, NH--Orford historical district.

Lyme, NH--Moses Kent Farm includes original Rufus Porter murals. Edgell Bridge (covered) on River Road over Clay Brook. Porter Cemetery between River Road and the River about 0.1 mile north of the North Thetford Road.

Norwich, VT--Railroad station in Pompanoosuc village. Site of rope ferry crossing. Britton historic house. Forcier historic house. Norwich historic district. Railroad station near the Ledyard Bridge.

Hanover, NH--Twenty-eight buildings are listed as historic in the Hanover master plan including homes, commercial buildings, and Dartmouth College buildings. Old rope ferry location (used before bridges). Gilman Island may have been a stopping point in the Underground Railroad.

Hartford, VT--In White River Junction: Vermonter Hotel, Hotel Coolidge, old post office, old firehouse across the street from Railroad Row, municipal building, Gillette Street bridge over the railroad, site of old mill at the Wilder Dam, old store now the site of Valley Bank, Tip Top Bakery building. Two houses built by the railroad in Wilder village.

Lebanon, NH--The Downer family settled just south of Bloods Brook in 1762 at the site of an old Indian encampment. The original village of Lebanon was located just south of the confluence of the Mascoma River. Lebanon has always been an industrialized town as the first brick kiln was build before 1787. The Mascoma river provided power for the mills that produced the machine tools used to make Enfield rifles. One of the early schools for women, the Tilden

School Female Seminary 1854) was in West Lebanon

In the early days, the Mascoma River was the hunting and fishing area for the Squakeag Indians. It is said that in those days when the fish ran up the river, the shad all turned up the Mascoma and the salmon all went up the White, and the shad were so numerous that you could walk across the river on their backs.

#### Windsor working group

Cornish, NH--Cornish history was greatly influenced by the River and its stands of timber. Very early, the British established a Mast Camp close to the mouth of Mill Creek a short distance south of the Cornish-Windsor covered bridge. Many large trees in the area were marked for the exclusive use of the King of England. The first Cornish colonists established themselves about two miles north of this camp in the general vicinity of the point where Blow-Me-Down Brook enters the River, and where, in later years a mill pond and mill were established. In those days, the River offered the only access to the area. Trinity Church and the Chase House are historical buildings from a later era along the River.

Weathersfield, VT--Ashley Ferry site (the ferry crossed from the Weathersfield Bow to Claremont).

Claremont, NH--The original ferry from Claremont to Vermont was established in 1784 near the current boat landing. Ferry rights are still held by a local family. The first wood frame house in town was built in the Town House Hill area and later moved across the Sugar River to its current location where it is known as the Tyler House. The Cupola House on Route 12A north of 11-103 is where the Masonic Order was chartered in 1797. It was also used as a tavern at one time. Hubbard and Jarvis Islands were used for sheep pasture in the 1700's and 1800's.

Charlestown, NH--Charlestown has the site of Fort #4, the most northerly outpost of European civilization during the French and Indian War. The Main Street National Historic District includes 68 historic buildings.

Rockingham, VT--The Connecticut River used to bring logs to the paper mills in Bellows Falls which were a major part of the community's economy. A recreational boat club existed near the Bellows Falls-North Walpole bridge.

#### Brattleboro working group

Westminster, VT--There are 67 in the Historic District of Westminster village. Westminster was the first township granted in Vermont, by the government of New Hampshire. The first state convention was held there in 1775 and the town was de facto state capital for awhile.

Walpole, NH--Walpole village is of great historic significance with its many beautiful old houses and other buildings. Also, two historic sites in North Walpole.

Putney, VT--Putney village historic district has numerous sites. Two ferry landings, one at Great Meadows and one at River View Farm, a historic farm and

the largest sheep farm in New England.

Westmoreland, NH--Park Hill is the location of many historic buildings. Three ferry landings: north is Britton landing (to Putney), central is another to Putney. South is Wares landing to Dummerston.

Dummerston, VT--Ranney Farm, first maple syrup made in Vermont by settlers of European descent. Two ferry landings: one south (to Chesterfield) and one north (to Westmoreland).

Chesterfield, NH--Ferry landing (to Dummerston). First historic settlement

Brattleboro, VT--Numerous sites in the downtown Historic District. Fort Drummer.

Hinsdale, NH--Forty-two historic sites, 16 of which are in the village district. These sites include historic churches, schools, meetinghouses, homes, mills, factories, businesses, and farms. The Sheepskin Tavern, 1745, was a public house for swift-water rivermen. Also two forts, Fort Hinsdale and Daniel Shattuck's Fort, and site monuments. One ferry landing (to Vernon) and an old ocher mine on Wantastiquet Mountain.

Vernon, VT--Old ferry landing just below Stebbins Island. Governor Hunt mansion at Vermont Yankee. A few sites at Pond Road and Route 142.

\*\*\*\*\*

#### (b) Community Resource

Briefly describe how the river is recognized or used as a significant community resource.

\*\*\*\*\*

The working groups recognized that the River provides overall economic benefits to the communities that border it. These benefits include the tourists who travel by car or with bicycle or canoe tours and eat in local restaurants and overnight in local inns and campgrounds. They include the bait and tackle stores and the fishing guide services that also generate economic activity for the local communities. The River Corridor also provides ideal topography for agriculture and, in the north country, forestry.

The working groups also identified resources related to the River that are also important to their communities. They are listed below:

Colebrook working group

Pittsburg, NH--Old Home Day is held annually every summer in Lake Francis State Park.

Colebrook, NH--Annual Fourth-of-July race on the River.

Stratford, NH--town park along the River in North Stratford.

Northumberland, NH--Riverside Speedway race track (car races every weekend

during summer months).

Littleton working group

Lancaster, NH--Lancaster Fair Grounds, oldest in NH. Boat sales establishment.

Dalton, NH--Dalton Field Days.

~~Littleton, NH--Fishing derby on Moore Reservoir.~~ **NO**

~~Haverhill, NH--Bedell Bridge Park.~~

Norwich working group

Norwich, VT--Montshire Museum uses the River and its bank for educational programs. There is always activity along the River on Museum property.

Hanover, NH--Most Dartmouth College facilities are open to residents and visitors including the Ledyard Canoe Club and the rowing facilities. John Ledyard's spirit is honored annually in the spring by a week-long paddle down the Connecticut River to Long Island Sound. Collegiate rowing races are held on the River in the spring.

Hartford, VT--Formal and informal festivals are held in Lyman Point Park at the confluence of the White and Connecticut Rivers. Hartford High School uses the River for science programs including participation in Riverwatch.

Windsor working group

Hartland, VT--The River and its protection are noted extensively throughout Hartland's Municipal plan. Early history of the town centered on the River which was used for transportation and power. Because of the River's fertile floodplain, the town was known for its fine agricultural products, and it still hosts many large farms today. The western bank of the River in Hartland is also the site and source of an extensive and extraordinarily valuable amount of gravel. The town supports this industry while working to ensure the protection of the River and reclamation of the land.

Plainfield, NH--The Cobblestone Tiger Beetle, an endangered species found along the banks of the River, has been adopted as the town beetle.

Windsor, VT--The Cornish-Windsor covered bridge provides an important link to New Hampshire along with a sense of pride about the historic importance of the bridge.

Cornish, NH--The River and its Valley serve, to this day, to define a rather special economic, cultural, and political area currently known as "The Upper Valley". The rugged hills which separate the town of Cornish from other towns to the east serve to joint the town in an intimate kind of bond with the Vermont communities across the River. In many deep-felt ways Cornish is more "Vermont" than "New Hampshire". This relationship was emphasized and brought close to the surface of people's minds by the disruption caused by the recent three-year reconstruction of the Cornish-Windsor covered bridge.



The River figures prominently in the published histories of the town of Cornish.

#### Weathersfield, VT--

Springfield, VT--Land along the River is fertile and promoted agricultural use. The confluence of Rivers was the base for industrial development. Annual bass tournament.

Charlestown, NH--The River had a significant impact on the development of Charlestown being the site of Fort #4, the most northerly outpost of European civilization during the French and Indian War. The River is commonly referenced in both histories of the town and in the town plan.

Rockingham, VT--Rockingham Old Home Days fireworks display attracts large crowds including boaters who watch from the River. The River is the focus of a local fishing derby. The River is important to the community because it provides power for the New England Power Company hydroelectric plant. Boating access to the River is very convenient for residents.

Brattleboro working group  
Putney, VT--Putney hosts an annual rowing competition.

Brattleboro, VT--The Belle of Brattleboro operates scenic cruises. The Marina in Brattleboro is occasionally the site of an unofficial steamboat regatta.

Vernon, VT--Fish ladder at the Vernon Dam.

\*\*\*\*\*

## 4. Recreational Resources

### (a) Fishery

Identify any high quality recreational fisheries which are present in the river. Include location, if known.

\*\*\*\*\*

Colebrook working group

Fish and Game officials report that the entire River north of Groveton provides excellent trout fishing and is regularly stocked with trout by the department. There is a three mile catch and release only section that extends from 250 feet south of Lyman Falls to just north of the North Stratford-Bloomfield bridge. The Connecticut Lakes and Lake Francis are famous for their trout and cold water fisheries. First Connecticut Lake is considered one of the best trout and salmon waters in the state. Basically, people fish wherever they can find access to the River. Popular spots include the bridges that cross the River and thus allow some public access.

#### Littleton working group

Between Lancaster and Haverhill the River changes character many times, alternating between slower moving water in impoundments and faster moving water below dams. In slower moving, warmer parts of the River, people fish typically for warm water species such as hornpout, bass, northern pike, and walleye. In cooler and faster moving oxygenated sections, people fish for trout. Moore reservoir is a popular fishing area where people fish for bass, lake trout, and brook trout. Otherwise, people fish where they can get to the River near roads and bridge crossings.

#### Norwich working group

From the Wilder Dam to the northern boundary of Piermont and Bradford, the River is impounded and slow moving. This section provides good fishing for bass, perch, walleye, and rock bass. Much of the fishing is done from boats in places such as confluences with tributaries, shallows, coves, and backwaters. Ice fishing is a popular winter activity from Thetford and Lyme on downstream. Specific sites where fishing from shore is popular include the following: the area where Route 5 is close to the River north of East Thetford Village; the stream outlet just above the Wilder Dam in Wilder; and near the railroad bridge to Lebanon and at Lyman Point Park in White River Junction.

Below the dam, the River has a different character, but still provides good fishing for bass, perch, walleye, northern pike, and some brown trout. The eddy formed by the outwash of the dam is a popular fishing area as is the area under the Route 89 highway bridge on the west side. On the Lebanon side, people fish from the city park behind the K-mart Plaza.

#### Windsor working group

Below the Cornish-Windsor covered bridge, the river begins to run into the impoundment of the Bellows Falls Dam. Here the river is slower moving and becomes a warm water fishery that is enjoyed from boats. Popular fishing areas include the mouth of the Sugar River and Sumner Falls as well as the mouths of smaller tributaries. Sumner Falls has occasionally proven hazardous to fishermen who were caught by suddenly rising water.

#### Brattleboro working group

The impoundment of the Vernon Dam nearly reaches the Bellows Falls Dam which means that the entire reach of the southern part of the river is a warm water fishery. Anglers pursue their sport from numerous points on shore at official access points and whenever the railroad or highways allow them to easily access the water as well as from boats. Areas that were noted as being popular fishing spots include below the Bellows Falls and Vernon Dams, in the Westmoreland-Chesterfield section, at the mouth of the West River, in downtown Brattleboro, and in the bays and setbacks above the Vernon Dam.

\*\*\*\*\*

(b) Boating

Describe any significant recreational boating opportunities which are present on the river.

\*\*\*\*\*

Colebrook working group

Most of the boating on the River is limited to canoes, kayaks, and small rowboats since it is shallow in many places but use by those types of boats has become increasingly popular as the water quality has improved. The River above the covered bridge in Pittsburg is considered impassable. Popular sections include the stretch from West Stewartstown to Colebrook and from North Stratford to the Stratford-Maidstone bridge. The stretch starting approximately three miles below the Columbia covered bridge and running about four miles to Lyman Falls provides some rapids and swift water and attracts more experienced paddlers. The section from Maidstone to Guildhall is flat and, while not as popular as other sections, still attracts some use. The lack of public access limits greater use of the River in this section.

Littleton working group

Like sections below, this section of the River varies between two themes: impounded and free-flowing sections. Boating usage varies depending on the character of the River. From Guildhall to the Gilman Dam the River is swift and frequently shallow making it most suitable for canoes and kayaks. This section is lightly used. Some kayakers play in the drop that exists at the breached Northumberland dam. Above the Gilman Dam in Dalton there are a few party boats moored in the River. Below the Gilman Dam a canoe-only swiftwater stretch soon gives way to the slower waters of Moore Reservoir. This water body is suitable for all types of watercraft and is quite popular. The impoundment of the Comerford Dam begins immediately below Moore Dam and is also usable by a variety of boats. Below Comerford, down to the Placey Farm corner in Newbury where the impoundment from the Wilder Dam begins, the water is most suitable for canoes and kayaks due to small impoundments (compared with Moore Reservoir or the Wilder pool) and frequent portages past the McIndoes Falls Dam and Ryegate Dam or swift shallow water below the dams. These dams have new portage trails around them making carries and access easier. Residents along this section report that groups of canoes are observed on this section most summer days.

Norwich working group

From the Wilder Dam to the northern extent of the Norwich Working Group's segment, the Connecticut is impounded and slow moving making it suitable for all types of boating. This stretch of the River is popular: boat launch parking lots are full of cars, trucks, and boat trailers on weekends, and there is frequent boat traffic. In the northernmost parts of this segment, boat traffic is most frequently canoes, fishing boats, party boats, and speedboats. As one moves farther south, the Ledyard Canoe Club contributes more canoes and kayaks to the River, the Dartmouth College rowing programs contribute shells of all sizes, and folks are more likely to be found tubing in the River. The broader stretches near the Wilder Dam are used for water skiing.

Below the dam, the River is free flowing and fast. When the dam is holding back water, the River can be very shallow. Here it is best suited for, and mostly used by, canoes. Below the dam, the River is less popular than above, but it is still well used.

#### Windsor working group

The River is free flowing in this section. Flows are dependent on dam releases above, and the river may be quite shallow in places in times of low flow. The current is always swift. Nevertheless, this section is very popular with canoeists who savor the River's character and the attractive scenery on the shores.

Sumner Falls is a significant and dangerous barrier for the casual canoeist. There is a portage on the Vermont side on New England Power Company land. This site is often used as a starting or ending point for day trips along the River. The Sumner Falls area offers numerous opportunities for advanced paddlers of canoes and kayaks to play and practice in heavy whitewater. The area is fairly heavily used by boaters from the Ledyard Canoe Club at Dartmouth and other local paddlers on weekday afternoons and evenings and on weekends.

In the Claremont area and below the River is popular for use by powerboats as well as canoes. Some people are out there to fish while others simply enjoy the boating.

#### Brattleboro working group

There is a variety of boating on this whole section of the River between dams and below the Vernon Dam. Most of the boating activity takes place below Walpole. Motorboat use includes larger pleasure boats, small jon boats, and water ski boats. Canoes and rowboats are found along the entire length and can take advantage of back inlets. Sailing is limited as the River is sheltered from the wind.

\*\*\*\*\*

### (c) Other Recreational Opportunities

List any other recreational areas, facilities, or opportunities on the river or in the river corridor. Indicate ownership, if known.

\*\*\*\*\*

#### Colebrook working group

Pittsburg, NH--There are miles of [REDACTED] in Pittsburg and many run along the lakes and River. [REDACTED] is another popular pastime and the ungainly animals are commonly seen along the River. Route 3 from Pittsburg to the Canadian border is a scenic drive along the Connecticut Lakes. Lake Francis [REDACTED]

Canaan, VT to Guildhall, VT--All of Route 102 is a popular [REDACTED] It is also a scenic drive along the River.

Bloomfield, VT--The DeBanvilles have allowed camping on their property (permission required).

Stratford, NH--[REDACTED] on Route 3. Town park in North Stratford include playground equipment and a place to [REDACTED] along the River.

North Stratford, NH to Beecher Falls, VT--The former North Stratford Railroad line is used as a popular snowmobile route.

Littleton working group

Guildhall, VT--Individual bikers and bike tours use Route 102. This Route is also a popular scenic drive.

Lancaster, NH--Individual bikers and bike tours use Route 135 south of town. This Route is also a popular scenic drive.

Dalton, NH--Individual bicyclists and bike tours use Route 135 in Dalton. This Route is also a popular scenic drive.

Waterford, VT--Picnicking on New England Power land near Moore Reservoir.

Littleton, NH--[REDACTED] at Moore Dam. [REDACTED] and cruising on party boats on Moore reservoir. Individual bicyclists and bike tours use Route 135 in Littleton. This Route is also a popular scenic drive. Picnicking and boat launching on Moore and Comerford Reservoirs of New England Power.

Monroe, NH--Picnicking at McIndoes Falls Dam. Individual bicyclists and bike tours use Route 135 in Monroe. This Route is also a popular scenic drive. People swim in the impoundment above the Comerford Dam.

Bath, NH--Individual bicyclists and bike tours use Route 135 in Bath. This Route is also a popular scenic drive. Saddle Island is owned by the Connecticut River Watershed Council and is used for [REDACTED].

Newbury, VT--[REDACTED] offers good views of the village and River Valley.

Haverhill, NH--Swimming at Bedell Bridge State Park. From Woodsville on down people picnic on and swim from sandbars on the River. Some also camp on the sandbars. Individual bicyclists and bike tours use Route 135 down into Woodsville and head south out of town on Route 10. One bike tour stops at the Haverhill Corner bandstand for lunch. These Routes are also popular scenic drives. Trail on Black Mountain offers good views of the River Valley.

Norwich working group

Entire section: inn-to-inn canoe tours.

Bradford, VT--Biking is popular on Route 5.

Piermont, NH--Biking is popular on Route 10

Fairlee, VT--Biking is popular on Route 5.

Orford, NH--Biking is popular on Route 10.

Thetford, VT--Bikers, joggers, and bikers use Route 5. Where Route 5 is close to the River in the southern part of town the River bank is used for picnicking and ~~photography~~.

Lyme, NH--Biking is popular on River Road and Route 10. There is an inactive campground on the River in the northern part of town.

Norwich, VT--Biking and jogging on Route 5. ~~Walking trails~~ at the Montshire Museum. The Appalachian National Scenic Trail runs through Norwich and crosses the Connecticut River on the Ledyard Bridge.

Hanover, NH--Biking and jogging on Route 10 and side roads in Hanover. Hiking and ~~in~~ in the woods beside the River north of the Ledyard Canoe Club. Walking in the conservation area beside Mink Brook. Camping on Gilman Island. The Appalachian National Scenic Trail crosses the Connecticut River on the Ledyard Bridge and runs through Hanover.

Hartford, VT--Large New England Power Company recreation area north of Wilder Dam includes ~~swimming, fishing, and picnicking~~, ball field, and picnic area and is used for ~~swimming~~. Ball field at Ratcliff Park. The fish ladder at Wilder Dam has a ~~viewing window~~.

Lebanon, NH--There is a New England Power Company trail that leads from the Company's picnic area beside the Wilder Dam.

Windsor working group

Hartland, VT--North Hartland Flood Control Dam property is the largest recreation area in town (570 acres) and provides swimming, fishing, boating, and picnicking. There are VAST snowmobile trails near the River. There is a network of cross-country ski and equestrian trails. The play ground areas at the schools in North Hartland and Three Corners are used intensively.

Plainfield, NH--River Road and Route 12A are used by walkers, joggers, and the occasional equestrian. Both are popular with bikers as well. Numerous bicycle tours use these roads in summer.

Windsor, VT--The Windsor Country Club is privately owned and located in the northern part of town. The Blue Ridge Riding Stable is privately owned and located in the southern part of town.

Cornish, NH--Ballocks Crossing offers sleigh rides and hay rides. Saint Gaudens National Historic Site offers hiking and historical tours. Route 12 A is frequently used by bikers and joggers. The River Road is popular for horseback riding from the Wade Estate north.

Weathersfield, VT--Camping and picnicking at Wilgus State Park

Claremont, NH--Some folks camp on Hubbard and Jarvis Islands. People cross-country ski on Jarvis Hill. Game animals, turkeys, song birds, aquatic wildlife, and migratory birds are watched on this section of River.

Springfield, VT--Picnic area at Hoyt's Landing. YMCA land. Athletic fields

at schools.

Charlestown, NH--There are athletic fields at Patch Park. Picnic tables at the New England Power boat landing.

Rockingham, VT--Bellows Falls Country Club. Bellows Falls Municipal ski tow. Bellows Falls playground. Saxtons River recreation area. Herrick's Cove recreation area. Wells Street playground. Skating rink and ballfield at Vermont Academy. Polish American Club picnic grounds. Hitormis Gun Club. New England Power Company fish ladder. Green Mountain Flyer excursion train rides. Saxtons River Elementary School playground. Central Elementary School playground. Bellows Falls Municipal Forest for hiking and cross-country skiing.

Brattleboro working group

Westminster, VT--Athletic fields at Bellows Falls Union High School

Walpole, NH--Athletic fields north of and in Walpole village. Golf course south of Walpole village. Bellows Knatt Trail east of Walpole village. Picnic area at the New England Power boat launch.

Putney, VT--Athletic fields at Landmark College. Camping and swimming along the river in the southern part of town.

Dummerston, VT--Two campgrounds off Route 5 near Dutton Pines State Park. Athletic fields at the school near East Dummerston.

Chesterfield, NH--Park area north of West Chesterfield. Hiking trails on Wantastiquet Mountain.

Brattleboro, VT--Swimming in West River. Park associated with Brattleboro retreat.

Hinsdale, NH--Hiking trails on Wantastiquet Mountain. Swimming from island. Park near mouth of Liscomb Brook. Athletic fields at Hinsdale school and high school. Park in the far south of town.

Vernon, VT--Fish ladder at the Vernon Dam. Two New England Power picnic areas at boat launches.

\*\*\*\*\*

#### (d) Access

List any existing public access sites located along the river. Include the type of access (ex., canoe only) and related facilities (ex., parking). Include ownership, if known.

\*\*\*\*\*  
Location                      Ownership                      Type of Access                      Related Facilities

Colebrook working group  
Pittsburg, NH

Third Connecticut Lake, Champion Paper, improved ramp and parking

Deer Mountain Campground, state of New Hampshire, car-top boat access,  
picnicking, parking, camping

Second Connecticut Lake, New England Power, improved ramp, parking  
picnicking, rest rooms

First Connecticut Lake, New England Power, improved ramp, parking,  
picnic area, water, rest rooms

Lake Francis State Park, state of New Hampshire, improved ramp, parking  
picnicking, rest rooms, water

Lake Francis, NH Water Resources Board, improved ramp, parking

Stewartstown, NH

West Stewartstown-Canaan bridge (Route 114), highway right-of-way, car-  
top boats

Colebrook, NH

Opposite the state rest area on Route 3, highway right-of-way, car-top  
boats

Below the Colebrook-Lemington bridge (Route 26), highway right-of-way,  
car-top boats

Columbia, NH

At the covered bridge, highway right-of-way, car-top boats

Stratford, NH

North Stratford town park, town of Stratford, car-top boats, limited  
parking

Maidstone-Stratford bridge, highway right-of-way, car-top boats

(There are reportedly plans for a public access site at the Fish and  
Game owned property in Stratford.)

Bloomfield, VT

The owners of DeBanville's Snack Bar and store have allowed access from



their property on the River just across from their store on Route 102 for car-top boats.

**Guildhall, VT**

On the Vermont side of the Northumberland-Guildhall bridge, private, car-top boats

**Littleton working group  
Lancaster, NH**

South Lancaster Covered Bridge, highway right-of-way, car-top boats

**Lunenburg, VT**

Dalton-Lunenburg covered bridge, highway right-of-way, car-top boats

**Dalton, NH**

Below metal bridge underpass near Johns River, highway right-of-way, car-top boats

Portage trail around Gilman Dam

**Waterford, VT**

Moore Reservoir, New England Power, improved ramp, parking picnic area

There is a good portage trail around Moore Dam

**Littleton, NH**

Old Waterford Road Ramp, New England Power, improved ramp, parking picnic area, rest rooms

Crazy Horse Road Ramp, New England Power, improved ramp, parking, picnic area

Route 18 Ramp, New England Power, improved ramp, parking

Moore Dam Visitor's Center, New England Power, improved ramp, parking picnic area, water, rest rooms

**Barnet, VT**

Comerford Reservoir, New England Power, ramp, parking, picnic area

Passumpsic River Access, highway right-of-way, car-top boats

**Monroe, NH**

Route 18 Ramp, New England Power, improved ramp, parking, picnic area

Good portage trail around Comerford Dam

McIndoes Falls Dam, New England Power, car-top boats above and below dam, picnic area, poor portage trail

Ryegate, VT

Ryegate Dam, Dodge Falls Associates, car-top boats above and below dam

Bath, NH

Good portage trail around Ryegate Dam

Newbury, VT

State ramp, Vermont Fish and Game, improved ramp, parking, rest room

Haverhill, NH

Bedell Bridge State Park, State of New Hampshire, car-top boats, picnic area

Downstream from the Route 302 bridge, private and informal, car-top boats

Norwich working group  
Bradford, VT

Waits River boat launch, state of Vermont, improved ramp, parking

Orford, NH

Orford boat launch, town owned, improved ramp, parking

Thetford, VT

North Thetford boat launch, state of Vermont, improved ramp, parking

Lyme, NH

Where River Road is close to the River near the Hanover border, highway right-of-way, car-top boats

Norwich, VT

Ompompanoosuc River boat launch, state of Vermont, ramp, parking

Montshire Museum, privately owned, car-top boat access

Hanover, NH

Wilson's Landing boat launch, town owned, improved ramp, parking, and

rest room

Ledyard Canoe Club, privately owned, car-top boats, water, rest room

Mink Brook Area, town owned, car-top boats, parking

#### Hartford, VT

Wilder Dam boat launch, New England Power, improved ramp, parking, rest room, picnicking, boat dock

#### Lebanon, NH

East Wilder Road boat launch, town owned, improved ramp, parking

New England Power boat launch, New England Power, car-top boats can be launched above or below the dam using good portage trail, parking

Lebanon Sewage Treatment Plant (north side of Mascoma River), town owned, cartop boats

Lebanon boat launch (south side of Mascoma River), town owned, car-top boats

Bloods Brook, state of New Hampshire, car-top boats

Windsor working group

#### Hartland, VT

Summers Falls site, New England Power, launching area and portage for small boats, parking, picnic area

Lulls Brook, state of Vermont, car-top boats

#### Plainfield, NH

North end of River Road, private, car-top boats

#### Cornish, NH

Cornish Landing, NH Fish and Game, dirt launching ramp and parking

North Star Canoe Rental, private ownership, launching for car-top boats canoe rental

#### Weathersfield, VT

Wilgus State Park, state of Vermont, car-top boats, picnic area, rest rooms, water

#### Claremont, NH

Claremont boat landing, City of Claremont, improved ramp, parking, picnic area

### Springfield, VT

Hoyt's Landing, Vermont Fish and Game Department, improved ramp, parking, rest room

### Charlestown, NH

Lower boat landing at west end of Ferry Road, New England Power, improved ramp, rest room, and picnicking

### Rockingham, VT

Green Mountain Marine, private

Setback north of Bellows Falls Village, informal on private property, car-top boats

Mouth of Saxton's River, private property, informal access, car-top boats

Shoreline by Bellows Falls WWTP, New England Power and Bellows Falls Village, informal access, car-top boats

Roundy's Corner, private property, informal access, car-top boats

Herrick's Cove, New England Power, improved boat launch, parking, rest rooms

Green Street Marine, private, ramp

### Brattleboro working group Westminster, VT

South of Westminster Station, highway right-of-way, car-top boats

### Walpole, NH

Pine Street Access Area, New England Power, car-top boats

Bellows Falls Dam Access, town of Walpole, New England Power, car-top boats, parking

Just north of Walpole village, highway right-of-way, car-top boats

Near Boggy Meadows, highway right-of-way, car-top boats

### Putney, VT

Putney State ramp, state of Vermont, improved ramp, parking

### Westmoreland, NH

Two access points to the north off Route 63.

#### Dummerston, VT

Just south of Putney Station, highway right-of-way, cartop boats

One on dirt road opposite Dutton Pines State Park

#### Chesterfield, NH

Chesterfield town ramp, town owned, improved ramp, parking

#### Brattleboro, VT

Brattleboro state ramp, state of Vermont, improved ramp, parking

Connecticut River Safari, private, car-top boats, picnic area,

West River Marina, private, improved ramp, rest room

South end of town, highway right-of way, car-top boats

#### Hinsdale, NH

On island with the bridge to Brattleboro, highway right-of-way, parking

Hinsdale State Ramp, state of New Hampshire, improved ramp, parking,  
picnic area

Near Hinsdale village, highway right-of-way, car-top boats

#### Vernon, VT

At a setback at the very north end of town, highway right-of-way, car-top boats

Governor Hunt Recreation Center, Northeast Utilities, unimproved ramp,  
parking, picnic area, portage trail

\*\*\*\*\*

### 5. Other Resources

#### (a) Scenic Resources

Briefly describe any significant scenic focal points along the river.  
Indicate the location of the significant views to and from the river.

\*\*\*\*\*

Working groups identified numerous specific scenic points looking both to and from the river. It should be noted that from a boat the river provides new and spectacular views at every bend. Many sections offer long views to village roof, barns, distant hills, and even more distant mountains. However,

the short distance views, with changing vegetation with a variety of leaves and flowers, animal tracks on the banks, rocks and layered sediments in cut banks, and numerous wildlife species, are always delightful.

Colebrook working group .

Pittsburg, NH--There are sweeping views of Third, Second, and First Connecticut Lakes as well as Lake Francis from Route 3. About a mile north of the Pittsburg-Stewartstown town line, there is a long stretch of fast water that is scenic. In the center of town, just off Route 3, there is a short road leading to an old covered bridge that overlooks some gorges and whitewater.

Stewartstown, NH--There is a long stretch along Route 3 from the Colebrook-Stewartstown town line to the Coos County farm in the village of West Stewartstown that offers sweeping vistas of the River and surrounding valleys and farmland.

Colebrook, NH--Approximately half a mile north of the village there is an overview of the River Valley. Another scenic spot runs from the state rest area on Route 3 approximately a mile north.

Columbia, NH--There is a nice view from Route 3 about a mile north of the Stratford-Columbia town line. There is also a nice open stretch that extends approximately a mile ending at the covered bridge in Columbia.

Stratford, NH--There is a magnificent view of the River Valley looking over to Vermont from the top of Ramsey Hill just south of the village of North Stratford near the state historical marker commemorating the old log drives on the River. Just north of the village of North Stratford, there is an old railroad siding where the trains would switch tracks along the River. And just south of the Stratford-Columbia town line, there is a nice view of the rapids below what was once the old powerhouse for Lyman Falls hydro dam.

Northumberland, NH--There are some impressive views of the White Mountains and Percy Peaks from the River as it winds from the Maidstone-Stratford town line through Northumberland to the junction of the Upper Ammonoosuc River.

Vermont--There was a feeling that the entire stretch of Route 102 from Beecher Falls to Guildhall could be designated a scenic drive. For the most part, it closely winds along the River offering views that range from scenic to breathtaking in scope. The group identified a number of views along the route that have to be among the most spectacular in the entire River corridor. They are the rapids in Lemington just above Lyman Falls, the view looking off at the Stratford mountains in Brunswick about three miles from the Bloomfield town line, and perhaps the most breathtaking of all - the sweeping view looking across the River Valley with Percy Peaks in the background as seen about a mile north of the Stratford-Maidstone bridge.

Littleton working group

Lancaster, NH--Looking north from the Guildhall bridge. Views from Route 135 south of town. View of the entire River Valley from Mount Prospect in Weeks State Park.

Lunenburg, VT--View from Bobbin Mill Road towards the River with the Presidential Range in the background. The view from Prospect Farm in Gilman.

Dalton, NH--Views from Route 135 of forest land and agricultural land.

Waterford, VT--View from the access road to the New England Power campsite off of Route 18.

Littleton, NH--View looking upstream from the Moore Dam.

Barnet, VT--Views from Route 5.

Monroe, NH--Views from Route 135 of NH farmland, the deep River Valley, and the Vermont hills beyond.

Ryegate VT--Views from Route 5. View from pull-off on the Interstate.

Bath, NH--View of "the Narrows" from Route 135 just north of Woodsville.

Newbury, VT--Views from Route 5 between Wells River and Newbury village of many famous farms.

Haverhill, NH--Site of Bedell Bridge. Views from Route 10 south of Haverhill Commons.

Norwich working group

Bradford, VT--There are sweeping views of the River Valley from northbound Route 91 south of the village of Bradford and from the higher land near the Bradford rest area. There are also views of the Connecticut where it bends close to Route 5 in the southern part of Bradford. There is a good view of the Waits River from Route 5 also.

Piermont, NH--In Piermont, there are numerous attractive views of agricultural land from Route 10 and River Road. View of Medlicott House near the intersection of Route 25 and River Road.

Fairlee, VT--There are good views of the River Valley from Route 5 and 91 at Ely Hill and from south of Sawyer Mountain. There is also an attractive view of Lake Morey from Route 91 north of the lake. There are good views from the River looking up at The Palisades above Fairlee village and looking up at Sawyer Mountain.

Orford, NH--The mansions in Orford are striking from Route 10.

Thetford, VT--Route 5 is close to the River and the railroad in the southern part of Thetford. This section offers good views.

Lyme, NH--The River Road, north of the East Thetford Bridge to the Orford town line, has been designated a town scenic road. Several of the agricultural fields along this stretch of road have been permanently protected. There are also several excellent, well-maintained examples of colonial architecture.

Norwich, VT--Most of Route 91 through Norwich offers scenic views of alternating woodlands and fields. Views of the Baker Library tower across the River from Route 91.

Hanover, NH--Views of agricultural fields from River Road between Route 10 and the Lyme town boundary. Route 10 south of the intersection with River Road provides sweeping views overlooking Wilson's Landing, Fullington Farm, and the outlet from Storrs Pond. Views of the River and riparian forest from the Hanover golf course and trails leading from it down to the River. Mink Brook natural area provides natural appearing views of a smaller brook from hiking trails beside the brook and from the water. Occum Ridge offers views of old riverfront homes, Pine Park, and Occum Pond.

Hartford, VT--View from Wilder Dam looking down river at natural looking banks with Mount Ascutney framed on a clear day. Views of tree covered banks seen from the River below the dam. View north along the River from the Wilder picnic area.

Lebanon, NH--Views looking north as one travels up the River from Wilder Dam are very natural looking.

Windsor working group

Hartland, VT--The major scenic vista along the River corridor in Hartland is the view down the Valley to Mount Ascutney. This is a prevalent and spectacular view all along Routes 91 and 5 and from the River.

Plainfield, NH--From a canoe, the entire river segment looking towards Plainfield is scenic with views of corn fields, woods, and steeply rising hills above. The view towards Vermont is much the same except along the extensive gravel pits in Hartland. In several locations, the River is framed by steep hills on both sides and Mount Ascutney rises in the background creating a striking scene. From land, the best views are towards the River and Vermont.

Windsor, VT--The view of the Windsor Country Club from Route 5. The view from Route 91 at the Windsor-Hartland town line. The view of the River from the Blue Ridge Riding Stable.

Cornish, NH--The whole stretch of the Connecticut River in Cornish is scenic, as viewed both from the River and from the land. The outstanding scenic quality is due in no small part to the presence of Mount Ascutney, a monadnock rising upward to 3150' from the Vermont shore, and serving as a backdrop and focal point to the River corridor. The scenic quality is enhanced by the proximity of route 12A to the River, assuring continuous views of the River Valley if not of the River itself, across the intervening fields, pasture, and woodland. Some scenic focal points in Cornish: Mount Ascutney; Cornish/Windsor covered bridge; old growth pines at Saint Gaudens (from Blow-me-down Brook); old railroad bridge; Chase Island, with horses -- popular picnic site; view north from covered bridge of the Beaman Estate; the continuous River terrace as a flat ribbon between the River proper and the steep valley wall abutting on the east.



Weathersfield, VT--Mount Ascutney dominates views in Weathersfield. There are spectacular views from many points on the River as well as other spots in town looking towards the mountain. The views towards the River Valley from the mountain are significant. South of Weathersfield Bow, the views of farmland and open space from the River are inspiring.

Claremont, NH--There are scenic vistas from the River, Ascutney Bridge, and Route 12A. Farmlands are a prominent part of the scenery above the bridge line with estates on the hill below Routes 11-103 east-west road, and prominent old homes with beautiful views of Mount Ascutney.

Springfield, VT--Rockingham to Weathersfield is one long scenic drive on route 5 due to its rural character, low density housing, and closeness of the road to the River. The Skitchewaug Trail is particularly spectacular.

Charlestown, NH--The view from the watch tower of Fort #4 looking north and south along the Connecticut. The view from the lower boat landing looking north and south along the River at the great meadows and green hills of Vermont. Route 12 south of town offers fine views of the river and adjacent setbacks.

Rockingham, VT--The Rockingham Town Plan specifically identifies scenic resources within the town, and eight of these sites are along the Connecticut River. They include the following: view north of Connecticut River and Mount Ascutney from Rockingham Street, Bellows Falls; view north of the Connecticut River and Valley from the Griswold Heights area, Bellows Falls; view south of the Connecticut River and Valley and Bellows Falls in the distance from Route 91 rest area near the Rockingham/Springfield town line. Also the so-called "setback" area just north of Bellows Falls village (below the Joy Wah restaurant); Herrick's Cove area; Roundy's Cove area; Albee's Cove area; view of Connecticut River from plateau located north of Williams River and east of Route 91.

Brattleboro working group

Westminster, VT--Lovely views of farmland from the River. View looking north from the bend in Route 5 north of Westminster Station.

Walpole, NH--Views of the River and islands from River Road. Views of River from Route 12 north of North Walpole. Views from Route 12 of the gorge below the Bellows Falls Dam. Views north from Route 12 at the mouth of Cold River. Views from River of Fall Mountain.

Putney, VT--Views north from Route 5 near Great Meadows.

Westmoreland, NH--Route 63 and River Road are scenic drives throughout their lengths in Westmoreland. Views of farmland and hills beyond from the river.

Dummerston, VT--Great views of the River from Route 91 south of Exit 4 and Route 5 from about the same location.

Chesterfield, NH--Views of the River from River Road which is scenic throughout its length. Trail up Mount Wantastiquet offers fantastic views of

River and surrounding area. Views of the River from West Chesterfield.

Brattleboro, VT--Great views of the River north of Exit 3 on Route 91. Scenic area at the confluence of the West River which includes the Retreat Meadows in Brattleboro.

Hinsdale, NH--Views from Route 119 from Hinsdale village north to Brattleboro. Views from Route 63 in Hinsdale up and down the River. Great views north and south to Cooper Point, islands, and Vernon VT from the Ashuelot River confluence. Trail up Mount Wantastiquet offers fantastic views of River and surrounding area.

Vernon, VT--Many great views of River from back roads in Vernon such as Tyler Hill Road. Views from the River looking towards Vernon's hillsides.

\*\*\*\*\*

**(b) Land Use**

Briefly describe the type and location of significant developments within the river corridor, including roads, utility crossings, bridges, commercial, and industrial developments, solid waste management facilities, and residential developments. Describe the type and location of any proposals for major developments within the river corridor.

\*\*\*\*\*

Colebrook working group

Pittsburg, NH--The village of Pittsburg is in the River Corridor. Other Corridor land use is predominantly seasonal camps, ~~state park~~, and forestry.

Clarksville, NH--The River Corridor in Clarksville is mainly open space

Canaan, VT--The villages of Beecher Falls and Canaan are in the River Corridor. There is industry in Beecher Falls and houses in the village areas back right up to the river.

Stewartstown, NH--West Stewartstown is opposite Canaan village and is close to the River. The County Farm and Hospital are south of the village. Abandoned railroad tracks and Route 3 are close to the River in places. Commercial development is close to the River on Route 3 near West Stewartstown.

Colebrook, NH--The village of Colebrook lies within the River Corridor. The Colebrook industrial park abuts the river near the Route 26 bridge although it is not visible from the River. Railroad tracks and Route 3 are close to the River in places.

Lemington, VT--Lemington is primarily agricultural

Columbia, NH--Land use in the River Corridor in Columbia is open space near the river and mixed residential along Route 3. There is a sand and gravel operation along the River in north of the covered bridge.

Bloomfield, VT--Bloomfield village is in the River Corridor. Otherwise, land along the River is mostly agricultural.

Stratford, NH--North Stratford and Stratford villages are in the River Corridor. There is mixed residential use along Route 3. There are two mills in North Stratford, one of which is currently not operating.

Brunswick, VT--Land use in the Corridor is primarily agricultural.

Maidstone, VT--Land use along the River is predominantly agricultural and there are two commercial nurseries.

Northumberland, NH--Northumberland village is in the River Corridor and includes several industries. There is mixed residential use along Route 3. Land along the River is primarily agricultural open space.

Guildhall, VT--Guildhall village is in the River Corridor. The remaining

Corridor land is mostly agricultural. There is one sand and gravel operation in Guildhall.

Littleton working group

Lancaster, NH--There is limited residential development on the outskirts of Lancaster in the River Corridor. Elsewhere along the River land use is primarily agricultural.

Lunenburg, VT--The village of Gilman is in the River Corridor. It includes industrial development.

Dalton, NH--Land use along Route 135 is mostly residential with some commercial development. There is farmland in the northern part of town. In the southern part of town, the riverfront is forested and is owned by New England Power near Gilman Dam.

Concord, VT--Land in the River Corridor is predominantly forested and owned by New England Power. NEP land is managed for timber, wildlife, recreation, and shoreline protection and is open to the public.

Littleton, NH--Land beside the Connecticut is mostly forested and owned by New England Power. NEP land is managed for timber, wildlife, recreation, and shoreline protection and is open to the public.

Waterford, VT--Land along the river is primarily in forest owned by New England Power. There is also agricultural land in the River Corridor. NEP land is managed for timber, wildlife, recreation, and shoreline protection and is open to the public.

Barnet, VT--McIndoe Falls, Barnet, and East Barnet villages are within the River Corridor. There is development associated with the hydroelectric dam in McIndoes Falls. Otherwise land use is agricultural or in forest which is mostly owned by New England Power. NEP land is managed for timber, wildlife, recreation, and shoreline protection and is open to the public.

Monroe, NH--Outside of Monroe village, land use in Monroe is agricultural.


Ryegate, VT--East Ryegate village is in the River Corridor. There is an energy plant in Ryegate and there is development associated with the dam there.

Bath, NH--The River Corridor in Bath is primarily agricultural.

Newbury, VT--Newbury and Wells River are village areas in the River Corridor. Outside of the villages, land use is primarily agricultural.

Haverhill, NH--Woodsville, North Haverhill, and Haverhill villages are all in the River Corridor. Route 10 has mixed residential development and occasionally the highway and the railroad are close to the river. Outside of the villages, the land is mostly rural in character.

Norwich working group



Bradford, VT--The village of Bradford lies within the river corridor. Route 5 and the railroad tracks are very close to the river in places north and south of the village. There is mixed residential development along Route 5, but the character of the land is rural outside of the village.

Piermont, NH--The River Corridor is rural in Piermont with most of the land use agricultural. Residential development along River Road is rural in character.

Fairlee, VT--Fairlee village is within the River Corridor. Route 5 and the railroad tracks are close to the river much of the way through Fairlee and Route 91 is fairly close in the southern part of town. Where there is land between the transportation corridors and the river, it is generally agricultural.

Orford, NH--Orford village is within the River Corridor and Route 10 closely parallels the River. North and south of the village there is agricultural land including some large farms. Residential development along Route 10 has a rural character.

Thetford, VT--East Thetford and North Thetford are villages in the River Corridor. Route 5 and the railroad tracks closely parallel the River in much of Thetford. Land use outside of village areas is predominantly rural but includes a mixture of other uses.

Lyme, NH--River Road parallels the River closely in Lyme. In the northern part of town, land use is mostly agricultural. There is more residential development in the southern part of town.

Norwich, VT--Norwich village is on the edge of the corridor. Route 5 and the active railroad tracks parallel the river through much of Norwich. Outside of the village the character of the land is predominantly forested and agricultural, but with a mix of other uses including large gravel pits, an oil storage site near the Ledyard Bridge, residential use, and the Montshire Museum. South of the Montshire, there is protected forest land.

Hanover, NH--Hanover is part of a three-town regional center where many residents of surrounding towns work. The village and residential sections of Hanover extend into the River Corridor. Other types of land use include institutional use and a golf course. In spite of the development in Hanover, large portions of the riverfront land are protected by parks and easements.

Hartford, VT--Hartford is also part of the three-town regional center. Wilder and White River Junction are developed areas that include commercial, industrial, and residential districts in the River Corridor. South of Route 89 the land is rural in character. The intersection of Interstate Routes 91 and 89 is a key point for development in the area.

Lebanon, NH--Lebanon is the third part of the three-town regional center that provides jobs as well as goods and services to area residents. West Lebanon includes commercial, industrial, and residential areas in the River Corridor. City parks, New England Power Company land, and land protected by easements

provide a forested buffer to the River in many places.

**Windsor working group**

**Hartland, VT**--The major land uses along the River are: agriculture, gravel extraction, industrial, residential, the Central Vermont Railroad, and some steep forested banks. "Proposed Density Areas" from the 1988 Municipal Plan show that of the 7.5 miles of Connecticut River frontage in Hartland, about 60 percent is proposed medium density (overall housing density of 1 dwelling per 5 acres), 37 percent is proposed industrial, and 3 percent is proposed high density (overall housing density of 1 acre per house).

**Plainfield, NH**--Riverfront land use is entirely agricultural or low density residential.

**Windsor, VT**--Route 5 parallels the Connecticut River through Windsor. In the extreme northern and southern sections of town the land use is agricultural. The remaining land use in Windsor is a mixture of high density residential, commercial, and industrial.

**Cornish, NH**--The Connecticut River closely parallels Route 12A along the west side of Cornish. The River corridor is relatively undeveloped between Route 12A and the River, being essentially low density residential, forested, and agricultural, with minor sand/gravel quarry operations in the northern sector. A major feature in this area is the Cornish Windsor covered bridge. A railroad line south of the covered bridge further limits the development potential of the area south to the Cornish/Claremont town line.

**Weathersfield, VT**--North of the village of Ascutney, there is commercial development along Route 5. Although land along the River there is zoned industrial, it is mostly open space at present. The village residential area extends to just south of the Route 131 bridge to Claremont. From the Weathersfield Bow to the Springfield town line, riverfront land use is agricultural. There is an overhead utility crossing just south of the Route 131 bridge.

**Claremont, NH**--The River corridor in Claremont north of Routes 11 and 103 is predominantly agricultural and forested with some residential use. The southern part of town is zoned industrial with everything including heavy industry permitted. Industrial development has taken place on the terrace above the river, leaving the riverfront forested and agricultural.

**Springfield, VT**--Along the Connecticut River corridor in Springfield, there is farmland and low density residential use from the town boundary with Rockingham north to the interstate exchange. North of the interchange, there are alternating stretches of farmland and steep forested banks.

**Charlestown, NH**--There is some residential use south of the toll bridge, however, the preponderance of land along the River is agricultural. In North Charlestown there is one industrial site and a proposed fifty-four lot residential area.

**Rockingham, VT**--Between the boundary with Springfield and the Williams River

land use is agricultural or rural which is defined as low to moderate intensity residential use. South of the Williams River the land use is industrial. With the exception of the former "Steamtown" area which is at a lower elevation, the industrial areas are on a terrace above the River. At the southeast corner of the town, the village of Bellows Falls is designated as the only urban area within the town. The village includes intensively developed areas near the River and is served by village sewer and water systems.

#### Brattleboro working group

Westminster, VT--North Westminster is a village area just south of the mouth of the Saxtons River. South of North Westminster village, land use is mixed residential and open space. Westminster village is more densely settled and includes areas of commercial and industrial activity. South of the village, land use is of rural character with occasional houses. Where Route 5 and the railroad are close to the river in the northern part of town there is a commercial area.

Walpole, NH--North Walpole and Walpole villages have village land uses. There are mixed residential districts north and south of Walpole village and at the mouth of the Cold River. In the far south of town, along River Road, the land use is residential, but it retains a rural character.

Putney, VT--Land use in the River Corridor is rural in character with occasional residential development. Route 91 and the railroad are close to the river in places. There is a residential area south of East Putney Station and a commercial area near Exit 4 from Route 91 at the south end of town.

Westmoreland, NH--Land use in the River Corridor is primarily residential and open space. Use is residential and mixed residential along River Road in the north. The Cheshire County complex is institutional, but is rural in character. River Road is residential in the south and there is a gravel pit in the far southern part of town.

Dummerston, VT--The River Corridor is primarily occupied by Route 91 and the railroad in Dummerston. These linear features are bordered by open space. There are areas of commercial and mixed residential development in the northern part of town near Putney village. There is a small industrial area in the far south near Brattleboro.

Chesterfield, NH--River Corridor land use is primarily rural in character. Land use is residential on River Road in the far north. There is a residential section in the area of West Chesterfield village. The Route 9 corridor is mixed residential.

Brattleboro, VT--Land use in Brattleboro's River Corridor consists of industry in the northernmost and southernmost part of town, commercial activity near the West River, village uses in the center of town, and residential south of the West River.

Hinsdale, NH--There are two mixed residential areas which are fairly rural and two very limited commercial areas in Hinsdale between Wantastiquet Mountain

and the mouth of the Ashuelot. Generally, the River Corridor has a rural character.

Vernon, VT--North of the Vernon Dam there are three industrial areas including the nuclear power plant. There is a small residential section in the northern part of town and a mixed residential section along the bend in the river south of the dam.

\*\*\*\*\*

### (c) Land Use Controls

Identify the municipalities with existing master plans and zoning ordinances within the river corridor. Identify existing or proposed land use controls which affect the river and the river corridor (ex., zoning, easements, subdivision regulations).

\*\*\*\*\*

<u>Municipality</u>	<u>Master Plan?</u>	<u>Zoning?</u>	<u>Affect river corridor</u>
Pittsburg, NH	Pending	No	Subdivision regulations.
Clarksville, NH	No	No	Subdivision regulations.
Canaan, VT	Yes	Yes	Flood hazard area regulations.
Stewartstown, NH	No	No	Subdivision regulations.
Colebrook, NH	Pending	Yes	Subdivision regulations. One district, any use can occur.
Lemington, Vt	Yes	Yes	50 foot setback from streams in all districts.
Columbia, NH	Yes	Yes	Subdivision regulations. Floodplain zone requires floodproof buildings.
Bloomfield, VT	No	No	Flood hazard area regulations
Stratford, NH	Pending	No	Subdivision regulations.
Brunswick, VT	Yes	Yes	Shoreland district within 100 feet of water, 100 foot setback for structures. Flood hazard area regulations.
Maidstone, VT	Yes	Yes	Floodplain zone. Flood hazard area regulations. Stream district has 100 foot setback from low water and a 400 foot



frontage requirement

Northumberland, NH	Yes	Yes	Subdivision regulations. Riverfront included in agricultural, forestry, high density residential, and light industrial. Floodplain zone requires floodproof buildings.
Guildhall, VT	Yes	Yes	Flood hazard area regulations. Seventy foot setback from designated streams.
Lancaster, NH	Yes	Yes	Subdivision regulations. Riverfront falls within the agricultural district.
Lunenburg, VT	Yes	No	
Dalton, NH	Yes	No	Subdivision regulations
Concord, VT	Yes	Yes	Flood hazard area regulations.
Littleton, NH	Yes	Yes	Subdivision regulations. Riverfront falls within the rural district.
Waterford, VT	Yes	Yes	Subdivision regulations. Flood hazard area regulations.
Barnet, VT	Yes	Yes	Flood hazard area regulations. Shoreland regulations specify setbacks in all districts except village.
Monroe, NH	Yes	Yes	Subdivision regulations. Riverfront falls within the rural and residential/business district.
Ryegate, VT	Yes	Yes	Flood hazard area regulations. Shoreland/streambank district has a 100 foot building setback.
Bath, NH	Yes	Yes	Subdivision regulations. Riverfront falls within the rural/agricultural, steep slope, and floodplain districts. Rural/ag district includes a 125 foot septic

			setback from water. Slopes over 25% and floodplain: no development.
Haverhill, NH	Yes	Yes	Subdivision regulations. Zoning relates to floodplain management only.
Newbury, VT	Yes	Yes	Subdivision regulations. Flood hazard regulations.
Bradford, VT	Yes	Yes	Flood hazard regulations.
Piermont, NH	Yes	Yes	One acre minimum density with a variety of uses including agricultural, residential, forestry, junkyard, home occupation, and forestry permitted beside the river.
Fairlee, VT	Yes	Yes	Subdivision regulations. Flood hazard regulations.
Orford, NH	Yes	No	Subdivision regulations with two acre minimum lot size.
Thetford, VT	Yes	Yes	Subdivision regulations
Lyme, NH	Yes	Yes	A comprehensive zoning ordinance includes rural three acre zoning along the river and floodplain zoning.
Norwich, VT	Yes	Yes	Subdivision regulations. Floodplain regulations and aquifer protection district. Most of riverfront land is in rural zone although there are several nonconforming uses. There is a shoreline protection area along the River with setbacks, no hazardous materials, special drainage and grading, and 50 percent of trees left standing.
Hanover, NH	Yes	Yes	Hanover has 15 zones and a number are present in the river corridor including

institutional and residential. Much of the river is protected by voluntary buffers or conservation land owned by Dartmouth College and other large landholders.

Hartford, VT

Yes

Yes

Subdivision regulations. Floodplain regulations. Zones in the river corridor include industrial, commercial, and residential.

Lebanon, NH

Yes

Yes

Zones within the river corridor include highway commercial, commercial/industrial, and high density residential.

Windsor working group

Hartland, VT

Yes

No

Municipal plan provides development guidance in the river corridor: no development in floodplain, 50' setback from water, mining and extraction areas carefully managed and reclaimed, development on open fields should be on perimeters.

Plainfield, NH

Yes

Yes

Subdivision regulations. Riverfront land mostly zoned Rural Conservation (7 acres per lot minimum). A small section in the north is zoned Rural Residential (minimum lot size, 3.5 acres).

Windsor, VT

Yes

Yes

Subdivision regulations, wellhead protection area, aquifer protection area.

Cornish, NH

Yes

Yes

Proposed Connecticut River Shoreline Conservation Overlay District (all lands within 100' of river). Most land along the river currently in Conservation District. Platt Road to Plainfield boundary is Rural Residential.

Weathersfield, VT	Yes	Yes	Subdivision regulations and site plan review. Riverfront land in the northern part of the town is zoned industrial.
Claremont, NH	Yes	Yes	North and south of Routes 11 and 103, the river corridor is zoned agricultural/residential. Below the landing the river corridor is zoned industrial with a 500 foot buffer from the river. Heavy industry is permitted in the industrial zone.
Springfield, VT	Yes	Yes	Subdivision regulations. Riverfront is mostly Residential/Agricultural with small area of General Business.
Charlestown, NH	Yes	Yes	Subdivision regulations. Flood Zone building regulations for hundred year floodplain.
Rockingham, VT	Yes	Yes	Subdivision regulations. Southern part of Bellows Falls is zoned Industrial; north of the island it is Commercial and Residential. Outside of the village, zoning is Recreation/Conservation, Commercial/Industrial (1/4 of shoreline with 100' Recreation/Conservation buffer) , and Residential (1/3 of shoreline).
Brattleboro working group Westminster, VT	Yes	Yes	Subdivision regulations. There are industrial and commercial districts near the river.
Walpole, NH	Yes	Yes	Subdivision regulations. Floodplain district permits no building on the floodplain.
Putney, VT	Yes	Yes	Shoreland regulations call for a 100 foot setback for

			structures along the Connecticut. There is a commercial district in the River Corridor.
Westmoreland, NH	No	Yes	Subdivision regulations. Floodplain district permits no building on the floodplain.
Dummerston, VT	Yes	Yes	Shoreland zoning requires a setback of 50 feet for structures. There are commercial and industrial districts in the River Corridor.
Chesterfield, NH	Yes	Yes	Subdivision regulations. Floodplain district permits no building on the floodplain.
Brattleboro, VT	Yes	Yes	Subdivision regulations. Shoreland zoning requires a 150 foot setback for structures. There are industrial, commercial, and mixed residential districts in the River Corridor.
Hinsdale, NH	Yes	Yes	Subdivision regulations. There are small industrial and commercial districts in the River Corridor. Floodplain zone permits no building on the floodplain.
Vernon, VT	No	No	There is industrial development in the River Corridor.

\*\*\*\*\*

**APPENDIX A**  
**CONNECTICUT VALLEY INVENTORY VOLUME I**

**APPENDIX B**  
**CONNECTICUT VALLEY INVENTORY VOLUME II**

## APPENDIX C

### RARE, THREATENED, AND ENDANGERED ANIMALS

#### CONNECTICUT RIVER CORRIDOR

#### VERMONT

<u>Animal Species</u>	<u>Location</u>	<u>Srank</u>	<u>Grank</u>	<u>State</u>	<u>Fed</u>
<i>Falco peregrinus</i> (Peregrine Falcon)	Maidstone	S1	G3	E	LE
<i>Ammodramus savannndrum</i> (Grasshopper Sparrow)	Bradford Hartford	S1	G4	SC	
<i>Melanerpes erythrocephalus</i> (Red-Headed Woodpecker)	Bradford	S2	G5	SC	
<i>Hemidactylum scutatum</i> (Four-Toed Salamander)	Fairlee (2 sites)	S2	G5	SC	
<i>Bufo woodhousii</i> (Woodhouse Toad)	Hartford	SU	G5	SC	
<i>Alasmidonta heterodon</i> (Dwarf Wedge Mussel)	Norwich Thetford Weathersfield (6 sites)	S1	G1	T (proposed SE)	LE
<i>Alasmidonta varicosa</i> (Brook Floater)	Norwich	S1	G3	(proposed ST)	
<i>Cicindela marginipennis</i> (Cobblestone Tiger Beetle)	Hartford Windsor Westminster	S1	G2	T (PE/PT)	C2
<i>Caprimulgus vociferus</i> (Whip-poor-will)	Hartland	S3	G5	SC	
<i>Porzana carolina</i> (Sora)	Rockingham	S2	G5		
<i>Icterus spurius</i> (Orchard Oriole)	Rockingham	S3	G5		
<i>Coluber constrictor</i> (Black Racer)	Putney	S1	G5	SC	
<i>Clemmys guttata</i> (Spotted Turtle)	Vernon (2 sites)	S1	G5	T	
<i>Ambystoma jeffersonianum</i> (Jefferson Salamander)	Vernon	S3	G5	SC	



## APPENDIX D

### RARE, THREATENED, AND ENDANGERED PLANTS

#### CONNECTICUT RIVER CORRIDOR

##### VERMONT

###### Federal Endangered Species List

<i>Astragalus robinsonii</i> var. <i>jesupii</i> (Jesup's Milk-Vetch)	Entire population of this species is found at three sites within a 16-mile stretch of the Connecticut River from Hartland, VT south
<i>Scirpus ancistrochaetus</i> (Barbed Bulrush)	Two sites along southern Ct River

###### Vermont Endangered Species List

<i>Ludwigia polycarpa</i> (Many-fruited-false-loosestrife)	Rockingham
---	------------

###### Vermont Threatened Species List

<i>Viburnum edule</i> (Squashberry)	Lemington
<i>Hypericum pyramidatum</i> (Great St. Johnswort)	Newbury, Hartland, Weathersfield, Vernon
<i>Arisaema draconitum</i> (Green Dragon)	Newbury, Bradford
<i>Tofieldia glutinosa</i> (Sticky false-asphodel)	Hartland
<i>Physostegia virginiana</i> (Obedience)	Hartland, Windsor
<i>Carex garberi</i> (Garber's Sedge)	Hartland
<i>Cornus florida</i> (Flowering Dogwood)	Westminster, Rockingham
<i>Desmodium rotundifolium</i> (Prostrate Tick-trefoil)	Rockingham
<i>Panicum xanthophysum</i> (Yellow Panic-grass)	Vernon (Proposed SC)
<i>Helianthus strumosus</i> (Harsh Sunflower)	Vernon

###### Other uncommon or "watch list" plants that the Vermont Natural Heritage Program is tracking

<i>Gnaphalium sylvaticum</i>	Lemington
<i>Batrachium multifidum</i>	Lemington
<i>Elymus wiegandii</i>	Lemington
<i>Aster foliaceus</i>	Bloomfield
<i>Utricularia geminiscapa</i>	Brunswick
<i>Equisetum pratense</i>	Guildhall, Weathersfield, Vernon
<i>Scirpus smithii</i>	Bradford, Rockingham

<i>Poa languida</i>	Fairlee
<i>Aureolaria flava</i>	Fairlee, Brattleboro
<i>Najas guadalupensis</i>	Fairlee, Windsor
<i>Glyceria acutiflora</i>	Norwich
<i>Podostemum ceratophyllum</i>	Hartford
<i>Panicum virgatum</i>	Hartford, Vernon
<i>Mimulus moschatus</i>	Hartford
<i>Allium schoenoprasum</i> var. <i>sibiricum</i>	Hartland, Windsor
<i>Polygala verticillata</i>	Hartland
<i>Cypripedium reginae</i>	Hartland
<i>Cypripedium parviflorum</i>	Hartland
<i>Caprimulgus vociferous</i>	Hartland
<i>Potamogeton hilli</i>	Windsor
<i>Potamogeton ogdenii</i>	Windsor
<i>Woodsia obtusa</i>	Springfield, Newfane, Dummerston
<i>Chimaphila maculata</i>	Springfield, Vernon
<i>Paspalum ciliatifolium</i>	Rockingham, Windsor
<i>Scirpus purshianus</i>	Rockingham, Springfield, Vernon
<i>Tilleaea aquatica</i>	Rockingham, Brattleboro, Vernon
<i>Cenchrus longispinus</i>	Rockingham
<i>Isoetes riparia</i>	Rockingham
<i>Polygonum hydropiperoides</i>	Rockingham
<i>Carex pseudocyperus</i>	Rockingham
<i>Muhlenbergia sobolifera</i>	Rockingham
<i>Muhlenbergia tenuiflora</i>	Rockingham, Brattleboro, Vernon
<i>Carex trichocarpa</i>	Rockingham
<i>Nyssa sylvatica</i>	Rockingham, Vernon
<i>Asclepias quadrifolia</i>	Westminster, Rockingham
<i>Asclepias exaltata</i>	Westminster, Vernon
<i>Corylus americana</i>	Westminster, Rockingham
<i>Polygala polygama</i>	Dummerston
<i>Kalmia latifolia</i>	Brattleboro
<i>Sanguisorba canadensis</i>	Brattleboro
<i>Hypericum gentianoides</i>	Brattleboro, Vernon
<i>Eragrostis capillaris</i>	Brattleboro
<i>Cassia nictitans</i>	Vernon
<i>Panicum sphaerocarpon</i>	Vernon
<i>Panicum oligosanthos</i>	Vernon
<i>Quercus coccinea</i>	Vernon
<i>Cinnia arundinacea</i>	Vernon
<i>Polygonum biflorum</i> var. <i>commutatum</i>	Vernon
<i>Rhododendron nudiflorum</i>	Vernon
<i>Eragrostis frankii</i>	Vernon

APPENDIX E

EXEMPLARY NATURAL COMMUNITIES

CONNECTICUT RIVER CORRIDOR

VERMONT

Examples of Significant Vegetation Community Sites

- \* Roy Mountain Wildlife Area (south of St. Johnsbury) - 57-acre stand of native Red Pine; registered natural area of the Society of American Foresters
- \* Hart Island (Plainfield, NH) - A large number of plant species can be found here that are not common in NH or VT such as bladdernut, warty-barked hackberry, and the rare autumn coralroot.
- \* Vernon Black Gum Swamps (southern Vermont) - A series of four black-gum swamps that are the best in the state, containing aged specimens of the black gum and southern species of plants unusual for this region

Exemplary Natural Communities as Listed by the Vermont Natural Heritage Program

Spruce/Fir/Tamarack Swamp	Canaan
Remote Pond	Brunswick
Red Pine Forest	Brunswick
Remote Pond	Brunswick
Remote Pond	Maidstone
Lowland Bog	Maidstone
Floodplain Forest	Maidstone
Lowland Bog	Maidstone
Spruce/Fir/Tamarack Swamp	Guildhall
Floodplain Forest	Guildhall
Concord Woods	Lunenburg
Beech/Birch/Maple Forest	Lunenburg
Riverside Seep Community	Barnet
Riverside Outcrop Community	Ryegate
Red Pine Forest	Ryegate
Floodplain Forest	Bradford
Lowland Bog	Fairlee
Poor Fen	Fairlee
Warm Acidic/Circumneutral	Fairlee
Outcrop Community	
Red Maple/Black Ash Swamp	Thetford
Vernal Woodland Pool	Norwich
Floodplain Forest	Hartland
Rivershore Grassland	Hartland
Cicindelid Community	Hartland
Riverside Outcrop Community	Hartland
Floodplain Forest	Windsor
Riverside Outcrop Community	Weathersfield

Floodplain Forest  
Shallow Rush/Grass Marsh  
Floodplain Forest  
Floodplain Forest  
Deep Rush Marsh  
Deep Shrub Swamp  
River Mud Shore Community

Weathersfield  
Rockingham  
Westminster  
Dummerston  
Brattleboro  
Vernon  
Vernon

APPENDIX F  
HISTORIC SITES  
CONNECTICUT RIVER CORRIDOR  
VERMONT

<u>Historical/ Archaeological Resource</u>	<u>Location</u>	<u>Listing/ Eligibility</u>	<u>Significance</u>
Beecher Falls Border Station	Canaan, VT	NRHP	
Fletcher Park HD	Canaan, VT	HD	National
Alice M. Ward Memorial Library	Canaan, VT	NRHP	
Columbia Covered Bridge	Lemington, VT	NRHP	
Guildhall Common HD	Guildhall, VT	HD	National
Mount Orne Covered Bridge	Lunenburg, VT	NRHP	
Lower Waterford HD	Waterford, VT	HD	National
The Lee Farm	Waterford, VT	NRHP	
Barnet Center HD	Barnet, VT	HD	National
Lind Houses	Barnet, VT	NRHP	
McIndoe Falls HD	Barnet, VT	HD	State
McIndoes Academy	Barnet, VT	NRHP	
Whitehill House	Ryegate, VT	NRHP	
East Ryegate HD	Ryegate, VT	HD	State
Oxbow HD	Newbury, VT	HD	National
South Newbury Village HD	Newbury, VT	HD	National
Wells River Graded School	Newbury, VT	NRHP	
Wildwood Hall	Newbury, VT	NRHP	
Newbury Town House	Newbury, VT	NRHP	
Oxbow HD	Newbury, VT	HD	National
Bayley HD	Newbury, VT	HD	National
Newbury Village HD	Newbury, VT	HD	National
Wells River Village HD	Newbury, VT	HD	National
Bradford Village HD	Bradford, VT	HD	National
Goshen Church	Bradford, VT	NRHP	
Fairlee Village	Fairlee, VT	HD	State
Thetford Center Covered Br.	Thetford, VT	NRHP	
Union Village Covered Br.	Thetford, VT	NRHP	
Peabody Library	Thetford, VT	NRHP	
Jedediah Strong II House	Hartford, VT	NRHP	
Wilder Canal	Hartford, VT	Not listed	
White River Junction HD	Hartford, VT	HD	National
Martin's Mill Covered Bridge	Hartland, VT	NRHP	
Sumner's Falls Canal	Hartland, VT	Not listed	
Willard Covered Bridge	Hartland, VT	NRHP	
Cornish-Windsor Covered Br.	Windsor, VT	NRHP	
Windsor Village HD	Windsor, VT	HD	National
Old Constitution House	Windsor, VT	NRHP	
Windsor House	Windsor, VT	NRHP	
Fowler-Steele House	Windsor, VT	NRHP	
Robbins & Lawrence Armory	Windsor, VT	NRHP	

& Machine Shop	Windsor, VT	NRHP	
Historic Crown Point Road	Weathersfield	NRHP	
Weathersfield Bow HD	Weathersfield, VT	HD	State
Eureka Schoolhouse	Springfield, VT	NRHP	
Moore & Thompson Paper Mill Complex	Bellows Falls, VT	NRHP	
Miss Bellows Falls Diner	Bellows Falls, VT	NRHP	
Bellows Falls Downtown HD	Bellows Falls, VT	HD	National
Bellows Falls Island			
Multiple Resource Area	Bellows Falls, VT	MRA	
Westminster Village HD	Westminster, VT	HD	National
Brooks House	Brattleboro, VT	NRHP	
Brattleboro Retreat	Brattleboro, VT	NRHP	
Canal Street Schoolhouse #6	Brattleboro, VT	NRHP	
Brattleboro Downtown HD	Brattleboro, VT	HD	National
Union Station	Brattleboro, VT	NRHP	
Joseph Caruso House	Brattleboro, VT	NRHP	
Brooks House	Brattleboro, VT	NRHP	
Estey Organ Company Factory	Brattleboro, VT	NRHP	
Deacon John Holbrook House	Brattleboro, VT	NRHP	

National Register Nominations in Process along the Connecticut River as of July, 1991

Nulhegan River Bridge, Bloomfield  
 Thetford Center Historic District, Thetford  
 Parker Hill Rural Historic District, Rockingham and Springfield  
 Oak Hill Cemetary Cottage, Rockingham  
 General Morris House, Springfield  
 Skitchawaque Archaeological Site  
 Vernon Hydroelectric Plant; Vernon (will be required under Section 100 review)